

Part 1It is not usually long before new Arduino users discover that although the delay () function is easy to use it has side effects, the main one of which is that its stops all activity on the Arduino until the delay is finished (not quite true, I know, but that is usually how the problem presents itself). When this occurs the new user is usually directed to the BlinkWithoutDelay example sketch(BWoD) and/or the excellent thread entitled Several things at the same time. Several things at the same time at (apparently) the same time. What they need is to understand the BWod principle before they can see how to apply it to their own situation. The programs presented here overlap with those in that thread but I have put my own spin on using millis() for non blocking timing. In this thread I will try to explain the principles of using millis() for timing and apply it to some common areas where questions arise. The principle is easy to describe but there are some gotchas along the way that you need to look out for. To use millis() for timing you need to record the time at which an action took place to start the timing period and then to check at frequent intervals whether the required period has elapsed. If so, you presumably want to do something, otherwise why would you be timing? If the period has not yet elapsed then you can go on your way and possibly do other things until the next check. In the sample programs below there are some assumptions made as follows: You know how to set the pinMode() of an input and outputPins A1, A2 and A3 are used as digital inputs but any pin other than 0 and 1 can be used. Input pins are defined as INPUT_PULLUP in pinMode() and that closing the associated switch takes the pin LOWPins 10, 11, 12 and 13 each have LEDs attached via a current limiting resistor to 5V, so taking the pin LOW turns on the LEDPins 10 and 11 are capable of PWM output when required. Variables used will be declared as globals for ease of use but purists may want to declare some of them locally The programs in this thread have been written and tested on a Uno but will run on most/all Arduino boardsLet's get startedIn order to use millis() for timing the program is going to need to know its current value, perhaps more than once in each time through loop(). Whilst it is possible to read the value each time it is required it is more convenient to do this at the start of loop() and you do it like thiscurrentMillis = millis(); Simple enough, but this line of code embodies a number of important ideas: The variable must previously have been declared. It is an unsigned (more on this later). It is an unsigned long because that is what millis() returns. It is important that it is unsigned (more on this later). It is an unsigned long because that is what millis() returns. It is important that it is unsigned (more on this later). your own name but this is the one that I will be using. We are going to need at least 2 other variables in order to determine whether the required period start and how long is the period? At the start of the program declare 3 global variables, as follows Code: [Select]unsigned long startMillis;unsigned long currentMillis;unsigned long currentMil need to record the time at which an action took place to start the timing period and then to check at frequent intervals whether the required period has not yet elapsed then you can go on your way and possibly do other things until the next check. More of this later. The program :unsigned long startMillis; //some global variables available anywhere in the programunsigned long currentMillis; const unsigned long currentMillis; const unsigned long startMillis; const unsigned long currentMillis; const unsigned long startMillis; //some global variables available anywhere in the program unsigned long currentMillis; const unsigned long startMillis; const unsigned long debugging info pinMode(ledPin, OUTPUT); startMillis = millis(); //initial start time} void loop() { currentMillis - milliseconds since the period has elapsed { digitalWrite(ledPin, !digitalRead(ledPin)); //if so, change the state of the LED. Uses a neat trick to change the start time to determine whether the period has expired. If you don't understand how the state of the LED is changed don't worry but for information it reads the current state of the LED pin (HIGH or LOW) and writes the opposite state (HIGH or LOW) to it. Probably the most important thing is to remember to save the start time when the LED state is changed, ie the start of the next timing period. Copy the program into the IDE, upload it and watch in amazement as the LED blinks. Do not resist the temptation to change the blink period. Now let's tackle what might be an elephant in the room. The program will sit there quite happily comparing the current time with the start time and turning the LED on and off if it is time to do so. After some time, actually just over 49 days, the value returned by millis() will get so large that it will not fit in an unsigned long variable and it will roll over to zero and start incrementing again. I don't suppose that you will leave this program running for 49 days to see what happens (please feel free to do so), but suppose that you had used the principle for something more critical that simply must not do something silly after 49 and a bit days. Fear not. Using unsigned variables and subtraction for the elapsed period the comparison will work even if/when millis() rolls over to zero when the program is running. This is not the place to have a diversion into the reasons why this works but trust me, it does.OK, that is blinking a single LED with a symmetrical on/off period done and dusted using the principle of testing the elapsed time since an event. What next? Well, we could blink more than one LED with a different period, we could blink more than one LED with a different period, we could blink more than one LED with a different period, we could blink more than one LED with a different period, we could blink more than one LED with a different period and even do a combination of both. The best way to do this is to use arrays of values but it would mean introducing the principles of using arrays and if you are reading this I suspect that it will overload you and be too large a diversion from the subject in hand. You could change the on/off periods by simply changing the principle to changing the brightness of an LED instead of turning it on and off ?In part 2 that is what we will do and after that we will do and after that we will make the program appear to do two things at once using the magic of millis() With my BASIC language programmed controllers I can use AND and OR.example: IF (VAL > 100 AND VAL < 140) THEN ... How can I solve this with the if function in the Arduino? Thanks. 1 Like you need to add () 's and a lot of them, further Arduino knows 2 types of AND and OR's the logical and the bitwise. IF (VAL > 100 AND VAL < 140) THEN ... becomes if ((val > 100) && (val < 140)) {} See for more information 1 Like C++ Keyword Synonymsand &bitor | not !not_eq !=or ||or_eq |=xor ^xor_eq ^=EDIT: What the above means is that: IF (VAL > 100 AND VAL < 140) THEN ...can be written as:if (val > 100 and val < 140) { ...} 3 Likes See for more information for this link didn't now where to look. It works perfect now. Many thanks you need to add () 's and a lot of themWhy? && and || are of a much lower precedence than any operator you would commonly use in a comparative expression. Overbracketing just leads to parenthesis-blindness in my opinion, though I concede that is partly a matter of style. Why? && and || are of a much lower precedence was higher it kept my debugging sessions short except the first time parenthesis-blindnessEver debugged LISP code? Im using arduino IDE 2.3.2 with esp32 wrrom kit and Im trying to generate a simple pwm example and Im getting this error: 'ledcSetup' was not declared in this scopeThe esp32 library is the 3.0.4.I read in the forum abouyt this error but how do I solve it?ThanksGaston 1 Like Please post your sketch, using code tags when you do. This prevents parts of it being interpreted as HTML coding and makes it easier to copy for examinationIn my experience the easiest way to tidy up the code and add the code and add the code tags is as followsStart by tidying up your code by using Tools/Auto Format in the IDE to make it easier to read. Then use Edit/Copy for Forum and paste what was copied in a new reply. Code tags will have been added to the code to make it easy to read in the forum thus making it easier to provide help. 1 Like GastonMelo:this errorShow the full error. did you #include ?ledc API has changed, theres no ledcAttachPin anymore I forgot to mention that this is a new installation of arduino IDE 2.3, I already installed the esp32 espresif. So I need to install other libraries?#include #include # 50, LEDC RESOLUTION); // Set frequency to 50Hz, resolution to 10 bits ledcAttachPin(LEDC PIN, LEDC CHANNEL); // Associate GPIO pin with LEDC channel} void loop() { int dutyCycle = (pow(2, LEDC RESOLUTION) - 1) * 0.075; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC CHANNEL); // Delay for 1 second delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, dutyCycle); delay(1000); dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * 0.0875; // Calculate dutyCycle = (pow(2, LEDC_RESOLUTION) - 1) * (pow(2, LEDC_RESOLUTION) - 1) * 0.0625; // Calculate duty cycle value using 10-bit resolution ledcWrite(LEDC_CHANNEL, 50, LEDC_RESOLUTION); // Set frequency to 50Hz, resolution to 10 bits | ^~~~~~/home/gaston/Arduino/sketch sep16b.ino:10:5: error: 'ledcAttachPin' was not declared in this scope; did you mean 'ledcAttachPin' was not declared in this scope; did yo error: 'ledcSetup' was not declared in this scope @ZX80 tried to point you to the ESP32 API.On 3.x version, ledcSetup() and ledcAttachPin() are no longer available. That means you have 2 options:Rollback the version of the ESP32 board to the version 2.x OR modify your code according to the new API. Since the code is nor big or complex, I suggest the second option.void setup() { ledcAttach(LEDC_PIN, 50, LEDC_RESOLUTION); } and all ledcWrite functions thereafter will need to be:ledcWrite(LEDC_PIN, dutyCycle); 4 Likes Maybe try this version:#define LEDC_PIN 12#define LEDC_RESOLUTION 10 // Set resolution to 10 bitsfloat multiplyfactor[4] = {0.075,0.087,0.075,0.0825}; void setup() { ledcAttach(LEDC PIN, 50, LEDC RESOLUTION); } void loop() { for (int i=0; i Registers emulation: None(ATMEGA4809) since the beginning.Recently I noticed that this has changed back to: Registers emulation: ATMEGA328.I suspect it was caused by this update. Hi @stitech. stitech: I suspect it was caused by this update. The regression occurred at the Arduino IDE 2.3.0 release, as a side effect of this bug fix: github.com/arduino/a 2.3.2, or else you didn't notice the regression had occurred while you were using 2.3.1 don't think it is feasible for us to mitigate the regression so everyone will just have gone unnoticed for some time. Anyway: thank you. Search & replace - great feature, to see preview what is about to be replaced. 1st time I see this in IDE 1 Like Page 2 Arduino IDE 2.3.2 works great. Tried it on Raspberry Pi Pico and Espressif ESP32S3. Arduino Nano ESP32 ESP32-S3 on order will test that.I ran two different processors at the same time! I didnt even check if that was possible. Great work! 2 Likes A post was split to a new topic: Problems with IDE 2.x A post was split to a new topic: IDE 2.3.2 not opening Hi - I am using 2.3.2 not it is going to fail but you just have to wait it all out before you can try again. Hopefully the function is in the IDE now and someone can point me to it. Thanks Do not know about 2.3.2 but with the nightly 2.3.3, which I currently use, the bottom right message box displays a Cancel button during compile and upload. It works as advertised. Ahhh.. Wonderful - thanks - will look at the nightlies. Side note: I am running the nightly builds. In fact I updated today on general principle as I was running one that was about a month old. However, AFAIK the last change made to IDE that was brought into the nightly builds now something like 5 or 6 months ago. I see still the same bug as described for 2.0.2 here: Often stuck on uploading (IDE 2.0.3) IDE 2.x Hi, I'm using the IDE v2.0.3 with a Raspberry Pi Pico W. The program compiles correctly, it starts to upload the compiled program but most of the time the popup with "upload" button is disabled. So I have to close the IDE and start it again. Sometime the propup (and the disabled button) stays forever even if the program is uploaded and is running. Is there something that I could check? Thank y This should be handled properly. Occasionally happening to Pro Micro: A post was split to a new topic: Still no upload without recompile A post was split to a new topic: Hay alguna gua en espaol? This topic was automatically closed 180 days after the last reply. New replies are no longer allowed. Hi. Does someone know how to control onboard RGB LED on ESP32-S3? 3 Likes Its a neopixel LED so use an appropriate library such as; GitHub Arduino library for controlling single-wire LED pixels (NeoPixel, WS2812, etc.) - GitHub - adafruit/Adafruit NeoPixel: Arduino library for controlling single-wire LED pixels (NeoPixel, WS2812, etc.) Thank you. I followed the example. It compiles but the LED doesn't work neither on pi 38 nor 48.#include #define PIN 48#define NUMPIXELS 1Adafruit NeoPixel pixels (NUMPIXELS, PIN, NEO_GRB + NEO_KHZ800);#define DELAYVAL 500void setup () { pixels.begin();}void loop () { pixels.clear(); for(int i=0; iExamples->ESP32->GPIO->BlinkRGB for an example of how to use the onboard RGB LED. 1 Like If you use LED BUILTIN as the LED name, the RGB LED will blink white like a normal LED. 1 Like bojan jurca:It compiles but the LED doesn't work neither on pi 38 nor 48. You don't mention which exact board you have I found which has the RGB LED on pin IO18. Note: I do not know anything about ESP32-S3 so IO18 might well be pin 38 or 48; no idea. PSOne of the AdaFruit boards has the Neopixel on pin IO33 (schematic: Adafruit Learning System) I went through all the pins, both with digitalWrite and pixels with no effect. It could also be that my board is damaged. I'll figure it out somehow. Thank you very much. I thought there may be a problem with PWM on ESP32-S3, which I could also not get working. So I tried this code on ESP32-C3, it works just fine. It really looks like it is a PWM problem after all. #include #define PIN 8 // ESP32-C3 built-in RGB led#define NUMPIXELS 1Adafruit NeoPixel pixels (NUMPIXELS, PIN, NEO GRB + NEO KHZ800); #define DELAYVAL 500void setup () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () 15200); #define DELAYVAL 500void setup () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () 15200); #define DELAYVAL 500void setup () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () 15200); #define DELAYVAL 500void setup () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () 15200); #define DELAYVAL 500void setup () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () 15200); #define DELAYVAL 500void setup () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () 15200); #define DELAYVAL 500void setup () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN %i", PIN); //pinMode(pin, OUTPUT); pixels.begin () { Serial.printf (" PIN about subtraction I put this into a #define accumulatedMillis #define the switch being operated. Once were in doorOpening the switch state isnt checked since it doesnt matter anymore. Likewise, when the door is either open or closed we dont check the timer to see if its time to stop the motor. Remember, this is only an illustration, dont build a real garage door opener based on this sketch! Real-world door openers have safety features built in which dont exist in this demo./// The sketch simulates a simple motor-driven door opener, then stops. When the switch is pressed again the// door closes, then stops./// A timer is used to simulate the delay while the door is being// driven to its new position and LEDs simulate the up/down// forward/reverse action of the the motor.// The sketch uses the following I/Oconst unsigned char switchInput = 10; // Arduino pin 10 -- | |--SW-- GND const unsigned char openLED = 9; // +5V--/\/- 330 --> |-- Arduino pin 9const unsigned char switchInput = 10; // Brown position and LEDs simulate the up/down// forward/reverse action of the the motor.// The sketch uses the following I/Oconst unsigned char switchInput = 10; // Brown position and LEDs simulate the up/down// forward/reverse action of the the motor.// The sketch uses the following I/Oconst unsigned char switchInput = 10; // Brown position and LEDs simulate the up/down// forward/reverse action of the the motor.// The sketch uses the following I/Oconst unsigned char switchInput = 10; // Brown position and LEDs simulate the up/down// forward/reverse action of the the motor.// The sketch uses the following I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown position and I/Oconst unsigned char switchInput = 10; // Brown closeLED = 7; // +5V--/\/- 330 -->|-- Arduino pin 7#define motorStop HIGH#define accumulatedMillis millis() - timerMillisconst unsigned long motorTimerPreset = 2000; // two secondsunsigned lo namesenum {doorIsDown, doorOpening, doorOpen = 6; \text{ void loop() { switch (doorState) { case doorIsDown: // Nothing happening, waiting for switchInput pressed timerMillis = millis(); // reset the timer doorState = doorOpening; // Advance to the next state break; \text{ } else { // Switch not pressed break; // State remains} the same, continue with rest of the program } case doorOpening: Serial.println("door opening"); digitalWrite(openLED, motorStop); // Stop the motor would be replaced by a test of a limit // switch, or other sensor, in a real application. if (accumulatedMillis >= motorTimerPreset) { // Door up digitalWrite(openLED, motorStop); // Stop the motor would be replaced by a test of a limit // switch, or other sensor, in a real application. doorState = doorIsUp; // The door is now open break; } else { break; } case doorIsUp: Serial.println("door up"); if (digitalRead(switchInput pressed timerMillis = millis(); // reset the timer doorState = doorClosing; // Advance to the next state break; } else { // switchInput was not pressed break; } case doorClosing; // Advance to the next state break; } else { // switchInput was not pressed break; } case doorClosing; // advance to the next state break; } else { // switchInput pressed break; } else { // switchInput was not pressed break; } case doorClosing; // advance to the next state break; } else { // switchInput was not pressed break; } else { // switchInput was not pre Serial.println("door closing"); digitalWrite(closeLED, motorStop); // Stop the motor doorState = doorIsDown; // Back to start point break; } else { break; } default: Serial.println(" We hit the default"); delay(3000); doorState = doorIsDown; break; }} Topic Replies Views Activity About the Espaol category 0 2140 April 12, 2021 Por favor, no traduzcan los cdigos! 6 6483 July 27, 2021 Normas del foro en Espaol 3 20524 May 6, 2021 Sobre escribir todo en maysculas 1 22234 May 6, 2021 Opiniones Sensor Halisense NPK 3 40 July 21, 2025 Vrdude: stk500 recv(): programmer is not responding. Chip: CH340C 205695E24 22 51 July 21, 2025 Problema con mi alarma 1 19 July 19, 2025 Creacion de un IDE en C# para hacer automaticamente el programa Arduino o ESP32 u otras opciones 9 86 July 19, 2025 Interacciones WIFI-BLE en AZ-Delivery ESP-32 Dev Kit C V2 1 12 July 17, 2025 Amplificador Pam8403 y 84de 2 canales, 3 w+3 [OFF TOPIC] 11 71 July 17, 2025 Proyecto para la Universidad 5 57 July 13, 2025 Reemplazar Atmega 328 por Atmega 1284 6 55 July 13, 2025 Combinar libreras dmd y softwareserial 0 22 July 12, 2025 Bateria electronica 5 37 July 11, 2025 Problema para cargar placas arduino en pc win 10 1 26 July 9, 2025 Conectar mas de una pantalla nextion 10 39 July 1, 2025 Habilitacion de interrupcion con keypad 4x4 3 38 June 30, 2025 Mega 2560 y SIM7600 0 33 June 15, 2025 Quiero medir el flujo de aire con un sensor para aplicacin mdica 4 41 June 26, 2025 Sensor para almacenar datos recibidos de un sensor a un Esp32 7 38 June 26, 2025 Sensor para almacenar datos recibidos de un sensor a un Esp32 7 38 June 26, 2025 Sensor para almacenar datos recibidos de un sensor para almacenar datos recibidos datos datos recibidos datos datos datos datos datos datos datos datos datos de reloj con un motor paso a paso 3 46 June 25, 2025 Que GPIO para despertar del deepSleep y hacer digitalRead 6 41 June 25, 2025 Normally, Arduino IDE 2.3.6 from the "Software" page of the Arduino website and install the downloaded file: This release provides fixes for regressions present in Arduino IDE 2.3.5. Thanks so much to the forum community for all the valuable testing and feedback that has helped us greatly in identifying and investigating these bugs! Highlights Fix application auto-update capabilityarduino/arduino-ide#2697, arduino/arduino-ide#2696Arduino IDE 2.3.5. Arduino IDE 2.3.5 will not notify the user of an updated version, even if the user manually triggers an update check. This bug has been fixed in Arduino IDE 2.3.6, so the auto-update feature will work as before for users of Arduino IDE 2.3.5 means that it will not be possible to use the auto-update feature to update from 2.3.5 to 2.3.6. Please download Arduino IDE 2.3.5 means that it will not be possible to use the auto-update feature to update from 2.3.5 to 2.3.6. Please download Arduino IDE 2.3.6 means that it will not be possible to use the auto-update feature to update from 2.3.5 to 2.3.6. Please download Arduino IDE 2.3.6 means that it will not be possible to use the auto-update feature to update from 2.3.5 to 2.3.6. Please download Arduino IDE 2.3.6 means that it will not be possible to use the auto-update feature to update from 2.3.5 to 2.3.6. Please download Arduino IDE 2.3.6 means that it will not be possible to use the auto-update feature to update from 2.3.5 to 2.3.6. Please download Arduino IDE 2.3.6 means that it will not be possible to use the auto-update feature to update from 2.3.5 to 2.3.6. Please download Arduino IDE 2.3.6 means that it will not be possible to use the auto-update feature to update from 2.3.5 to 2.3.6. Please download Arduino IDE 2.3.6 means that it will not be possible to use the auto-update feature to update feature IDE 2.3.6 from the links on the "Software" page of the Arduino website: install the new version from the downloaded file. Fix opening additional sketches via file associationarduino-ide#2686, arduino/arduino-ide#2681 additional sketches via file associationarduino-ide#2681 additional sketches via file associationarduino-ide#26881 additional sketches via file associational sketches via file associationarduino-ide#26881 additional sketches via file associationarduino-ide#26881 addit addition to starting the Arduino IDE application directly, it can be started by opening a specific sketch file on a macOS machine, a pointless blank window was opened in addition to the Arduino IDE window for the selected sketch. Arduino IDE will now only open the window for the selected sketch. (Thanks @embeddedkiddie) Fix IDE stealing focus from other windows.arduino-ide#2679During long operations such as installing large boards platforms or libraries, or compiling/uploading large sketch programs, the user may wish to multitask by using another application will the operation proceeds in Arduino IDE. Previously, if the user selected a different window while an operation was in progress in Arduino IDE, a bug caused the Arduino IDE, a bug caused the Arduino IDE window to steal focus from the active window each time any new content was printed to Arduino IDE's "Output" panel. Expand and improve translationsarduino/arduino-ide#2692The community work to make Arduino IDE accessible to everyone in the world through localization of the text of the Arduino IDE translations, please see the information here: Full changelog here: If you have any questions or feedback please post here in the dedicated forum category for Arduino IDE 2.x. you want to see the list of known issues, work in progress, submit a formal report, or contribute to development, the Arduino IDE 2.x. download Arduino IDE 2.3.6 from the "Software" page of the Arduino website and installation preferences (e.g., whether to installation preferences (e.g., whether to installation folder, etc.)? 1 Like Afaik binaries and data including preferences are separated. 1 Like grb: Should IDE 2.3.5 be uninstalled first? It is not required. The Windows installation of Arduino IDE. If you are using the Windows ZIP package, then you manage the installation manually and are free to have multiple copies of Arduino IDE if you like, and likewise can delete the copies as you like, the same as the Windows ZIP package.macOS has a minimal installation helper, were you simply mount the DMG file and then drag the application from the mounted drive to the Application folder (or anywhere you like). You are free to have multiple copies of the Arduino IDE application folder if you want to store multiple copies in the same folder (since each folder must have a unique name). grb:does it remember the previous installation preferences (e.g., whether to install for just the current user or all users, location of installation folder, etc.)?Yes, the Windows installer does. 1 Like FYI, my MacAir does NOT have the following bugFix opening additional sketches via file association sonofcy:my MacAir does NOT have the Fix extra blank window on macOS when IDE started via sketch file association bug. Are you using 2.3.6, then that is expected because the bug has been fixed in 2.3.6. If you are using 2.3.5, then that is expected because the bug has been fixed in 2.3.6. If you are using 2.3.6, then that is expected because the bug has been fixed in 2.3.6. If you are using 2.3.6. If you a instructions:If Arduino IDE is running, select Arduino IDE > Quit Arduino IDE from the Arduino IDE menus.All Arduino IDE windows will close. Control-click on any .ino file from a sketch. A context menu will open that allows you to select which application to use to open the file. Select the Arduino IDE application from the menu. Arduino IDE starts, with the selected sketch open as expected. However, an additional blank Arduino window also opens. sonofcy: I also do not have the following bugFix opening additional blank Arduino window also opens. sonofcy: I also do not have the following bugFix opening additional blank Arduino window also opens. the path of the sketch to the Arduino IDE invocation as a command line argument. For example: "/Applications/Arduino/SomeSketch Maybe that explains it, I open sketches using normal methods like dbl clicking the ino file. I have no idea if that passes the path to the commance to the command line argument. although it sounds probable. I have NEVER used Control-Click for anything in all the years I have been using a Mac. I just tried it on 2.3.5, and indeed, it works as the bug report states. Now, I have to find out what the advantage is of using a procedure to open a sketch that requires all those extra steps. Thanks for the clarification, and now, back to our regularly scheduled program. sonofcy:Maybe that explains it, I open sketches using normal methods like dbl clicking the ino file. A double click procedure I described. Those instructions came from the bug report. I chose the Control-click procedure because it allows you to select the specific application to use to open the sketch, while the double click will open it using the default application. The developers and beta testers likely have multiple installation that is under test. sonofcy: I have no idea if that passes the path to the ino file to the commandmacOS seems to use a different mechanism. The reason I say this is because arduino/arduino-ide#2678 occurs when you open the sketch via double click or Control-click, but not when you open it via command line argument, but not when you open it via double click or Control-click, but not when you open it via command line argument. line argument, sonofcy: Now, I have to find out what the advantage is of using a procedure to open a sketch that requires all those extra steps. The only advantage is the ability to select which application will be used to open it. If the application you want to use is used by default, then there is no advantage is the ability to select which application will be used to open it. If the application you want to use is used by default, then there is no advantage is of using a procedure to open a sketch that requires all those extra steps. The only advantage is of using a procedure to open a sketch that requires all those extra steps. The only advantage is of using a procedure to open a sketch that requires all those extra steps. The only advantage is of using a procedure to open a sketch that requires all those extra steps. The only advantage is of using a procedure to open a sketch that requires all those extra steps. The only advantage is of using a procedure to open a sketch that requires all those extra steps. multiple versions/releases, but I have always used the Mac ecosystem method of Spotlight to select from a few versions of an app, fewer keystrokes I had a very old IDE in this Win 10 WS, so uninstalled it and grabbed 2.3.5. It was fascinating to see that during the first startup, the focus bug appeared. Tried to get a browser window into the fg, but the IDE kept took it back, until it was done with initial install, setup. Under 2.3.6 it's gone. Looks like IDE2.3.6 still having issues. Been working with zephyr on the giga R1 and had to do a remove of 0.3.1 and a reinstall. The reinstall completed successfully but after I closed and restarted the IDE on windows 11 22h2 received a not responding when I opened the IDE again. Had to restart machine. After restart it looked like it worked but when I put the board into booloader mode by double clicking the ide seems to have recovered. Merlin513:Looks like IDE2.3.6 still having issues. Been working with zephyr on the giga R1 and had to do a remove of 0.3.1 and a reinstallNeedless to say I have been in the same boat at times with zephyr, it feels like there is something with each individual GIGA on will it boot correctly or not. Not sure what.I have Two GIGAs, each now has a Giga display shield on it. With one of them, each time zephyr boots, I have to go to the Debug window (Serial1 through USB to UART connection) and type: sketchto get the sketch to run. Note: I have gone through probably 50+ loader installs since this started, plus I have tried building with or without debug on... The other one works as expected... Not sure what the difference is...Note: They both work fine when using MBEDI have also tried to reset, the giga using the instructions at:Factory reset giga r1/remove micropython - Mega / GIGA R1 WiFi - Arduino ForumBut maybe other things, like maybe the settings that it was set in earlierwhen using MBED, like flash split?...Sorry I know this is more giga specific and not the IDE, but maybe something like that is hitting your board as well, although maybe manifesting itself differently. There were other changes; not sure if it is in 2.3.4 2.3.5 or 2.3.5 2.3.6.One change that I observed is that when starting with a multi-line comment /* it now auto completes with the closing */.No complaints about it. Is this related to feat: use `theia@1.57.0` (#2654) arduino/arduino-ide@859d29d GitHub (2.3.4 2.3.5)? I confirm that was where the feature was introduced. For those of us who prefer to commands to find it, or type the command name in the "Settings" tab will open in the Arduino IDE main panel. Type editor. auto Closing Comments menu. Close the Preferences tab by clicking its X icon. 1 Like Two issues with 2.3.6:when initially offered to start the IDE immediately after the install, I got a black window. Library update hangs: DaveEvans: I got a black window. When that happened, did the IDE application become completely unresponsive as reported by @Merlin513: the IDE went blank and had to do task manager to kill the process DaveEvans:Library update hangsI can provide you with instructions for a workaround:Start Arduino IDE.When you see the "UPDATE ALL" button.Library Manager will open, with a list of the updatable libraries. Click the "UPDATE" button on the first of the entries in Library Manager for a library you wish to update. Wait for the update to finish, as indicated by the appearance of a "Successfully installed library you wish to update hanging still occurs when you use that procedure. I also experience this problem sometimes. Unfortunately it seems to only occur intermittently and under specific conditions, which makes it difficult to investigate. For example, I experience it when I use the IDE with my ridiculous 32 GB collection of 90 different boards platforms installed, but when I switch to a more realistic environment with only a dozen platforms then I can no longer reproduce the fault. And when I enable the debug logging that would give me some idea of what is happening, I can no longer reproduce the fault. And when I run the same commands with Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates for Arduino CLI directly (which is the tool that actually performs the library updates). IDE under the hood), I can no longer reproduce the fault. A very difficult to pin down bug! I have made multiple attempts at investigating it, but previously I didn't take it very seriously because we had never received any reports from users who were affected. However, now we have your report, as well as a couple of others over the last six months (1, 2), so maybe something has changed that makes it more likely to occur? I find that when I update each of the libraries separately using the procedure I described in my previous reply, instead of all in one go as occurs when you click the "UPDATE ALL" button in the notification, I never encounter the update process hang. So I think that we at least have a reliable workaround for the bug. ptillisch:When that happened, did the IDE application become completely unresponsive as reported by @Merlin513?:Yes.Thank you for the library work-around. I'll give that a try the next time there are libraries to update. 1 Like ptillisch:Please download Arduino IDE 2.3.6 from the links on the "Software" page of the Arduino website: Software Then install the new version from the downloaded file. Hi, I did update like this from 2.3.5 and my all-previous sketch library location, but they are not there. The bug that previous versions had (Restart: "A setting has changed that requires a restart to take effect. Press the restart button to restart button to restart Arduino IDE and enable the setting" when a new sketch is opened menu bar is missing) is still there. I am on Windows 10 64bit. Page 2 3 posts were split to a new topic: Port select grey out bug A post was split to a new topic: IDE 2.x laborary/student setup ptillisch:And when I enable the debug logging that would give me some idea of what is happening, I can no longer reproduce the fault. That may mean (99% of cases) that multithreaded application (IDE) is accessing shared resources without any locking mechanism. At least from mysoftware development experience. And this sympthom is the same for i386 Win32 GUI application or PowerPC RTEMS Console-only app.Debug output changes timings so this bug becomes not reproducible. These bugs are extremely hard to find (. DaveEvans:I'll give that a try the next time there are libraries to update. You can change library version manually, by editing library. properties file (located in your library library) and the common control of the folder): change version to the previous one and then Arduino IDE will offer you to update again ptillisch: I also experience this problem sometimes. Unfortunately it seems to only occur intermittently and under specific conditions, I experience this problem sometimes. libraries) or partial freeze. By partial I mean that IDE works somehow (you can edit files and switch between them) but file content is not saved, with "Saving Icon" (a circle) appearing that never goes away. This happens when I right click on a macro to go to definition: after clicking nothing happens (or Loading... appears) and since that moment no source files can be saved. Happens quite often, somehow connected to file operations, but I can't always reproduce it:-/ vvb333007:complete freeze (usually when IDE updates something in bulk, like toolchain or libraries) Thanks for your report @vvb333007. When that occurs, does the window go blank as was described by @Merlin513 and @DaveEvans: Merlin513:the IDE went blank and had to do task manager to kill the processI believe the window being black is due to them having the IDE configured for a light theme. vvb333007:Happens quite often, somehow connected to file operations, but can't always reproduce it :-/The lack of reliable reproducibility makes it challenging to investigate, prepare a fix, and validate the fix, but the "quite often" makes things a bit easier. Which operating system are you using? Windows 10, Light Theme, yes it was white blank. Do you have "debug" builds of Arduino IDE with all verbose output turned on? I'd like to install one so whenever it freezes I can copy IDE's debug output and send it to you. I had strong feeling that it is connected to multiple file operations performed in parralel. So even before you posted a workaround I somehow realized that doing things one by one will probably help. And yes it helped. Arduino IDE always automatically generates log files while it is running, so no special debug build is required. The next time you encounter this problem. The purpose is to gather more information. Please do this: Open a forum reply here by clicking the "Reply" button.Click the "Upload" icon () on the post composer toolbar: The "Open" dialog, select the latest .log file from this folder (the files are named according to the date): C:\Users\\AppData\\Roaming\\Arduino IDE\(where is your Windows username) Note that the C:\Users\\AppData folder is hidden by default. On Windows "File Explorer", you can make it visible by opening the "Upload" icon on the post composer toolbar as described in steps (5) (7) above, you can simply drag and drop the .log file onto the post composer field to attach it. Please let me know if you have any questions or problems while following those instructions. 1 Like 2 posts were split to a new topic: IDE hangs on startup A post was merged into an existing topic: IDE hangs on startup Hello, after upgrading to version 2.3.3 have a problem compiling my ESP32 module. I have a problem with the message: thread 'main' panicked at 'assertion failed: (left != right) left: 0, right: 0: Failed to get path name. Error code: 3', main.rs:65:9note: run with RUST_BACKTRACE=1 environment variable to display a backtraceexit status 101Compilation error: exit status 101Does anyone know how to solve the problem? Thanks and have a nice day marosh555: after upgrading to version 2.3.3 From what? From IDE 1.x or from IDE 2.x (2.3.2?)? Was that the only upgrade or did you also upgrade the board package in case that was also upgraded. If that works, you can upgrade it again; if that upgrade fails it has something to do with the board package. Further I can't really help; here are some search results: esp32 thread 'main' panicked at 'assertion failed: (left != right) - Google SearchNote: This might be IDE 2.x related (though not directly) and not hardware related and hence your topic has been moved to the IDE 2.x section of the forum. From version 2.3.2 on Windows 10. I have already tried installing the original version 2.3.2 but the result is the same. Yesterday when I was writing the program everything worked without problems and after the update this happened to me. The problem was solved when I downgraded the esp board. Thanks for help with my problem sterretje I had the same problem if you use Windows 10 like me. I solved it! After a long time of trying, I figured out that the account name must be without diacritics. After changing without diacritics, I installed the esp32 boards (from Espressif system) in the latest version 3.1.1 without any problems. 1 Like How did you rename the account name and computer name? The /users/'YourName' folder can't be changed or am I wrong? I changed my username because I had the same problem (my name is Jos, I changed or am I wrong? I changed my username because I had the same problem (my name is Jos, I changed or am I wrong? I changed or am I wrong? I changed my username because I had the same problem (my name) folder can't be changed or am I wrong? I changed my username because I had the same problem (my name) folder can't be changed or am I wrong? I changed or am I wrong? I changed my username because I had the same problem (my name) folder can't be changed or am I wrong? I changed my username because I had the same problem (my name) folder can't be changed or am I wrong? I changed my username because I had the same problem (my name) folder can't be changed or am I wrong? I changed my username because I had the same problem (my name) folder can't be changed or am I wrong? I changed my username because I had the same problem (my name) folder can't be changed my username because I had the same problem (my name) folder can't be changed my username because I had the same problem (my name) folder can't be changed my username because I had the same problem (my name) folder can't be changed my username because I had the same problem (my name) folder can't be changed my username because I had the same problem (my name) folder can't be changed my username because I had the same problem (my name) folder can't be changed my username because I had the same problem (my name) folder can't be changed my username because I had the same problem (my name) folder can't be changed my username because I had the same problem (my name) folder can't be changed my username and compute the same problem (my name) folder can't be changed my username and compute the same problem (my name) folder can't be changed my username and compute the same problem (my name) folder can't be changed my username and compute the sa your user sesion, so these are the steps you should follow. 1st. Be an administrator. 2nd. Create another user with administration privilegies. 3rd. Enter in that user sesison and change your user file name as you wish. 4th. Finally you have to change the register of the users on the computer, so open redegit and find this path: HKEY LOCAL MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\ProfileList\ there are the profiles path to each username, find yours and change the original one to the new path, for example: C:\Users\OldOne to C:\Users\NewOne in the profileImagePaththat's is all. Then you have to reset the computer, and be able to enter your session. My recommendation is to create another user and just use the new user, doing the previus can damage your installation of some programs that path your username profile archives (I got the reinstall Arduino and repair some path issues because I did that, it's annoying but it's possible). That's it, be careful doing that seriously (I google it when I did it and it works but causes some issues as I said). Thanks for sharing the solution you found @juanjgomezb! I'll mention an alternative workaround for those who are encountering problems caused by characters in their Windows user folder name. This workaround might be preferrable to those who don't feel comfortable making the changes to the registry as is required to change the folder name. The alternative is to configure Arduino IDE to use different paths on your computer, which are not under the user folder (and that only contain basic ASCII characters): These instructions will only work for Arduino IDE wersions 2.3.4 or newer. Select File > Quit from the Arduino IDE menus if it is running.All IDE windows will close.Open the file at the following path in any text editor:C:\Users\\.arduino-cli.yaml (where is your Windows username) and the following content to the arduino-cli.yaml file (or replace the existing content if equivalent content is already present in the file):build cache: path: directories: builtin: libraries: data user: Replace the placeholder with the path to the folder under which you want Arduino to store the cached data for compiling sketches. For this, and for the paths in the subsequent instructions, make sure to chose a location that is not under any folders with names that contain anything other than basic ASCII characters (e.g., A-z, 0-9, _, -, _,). Arduino IDE periodically deletes contents of this folder (the files stored under it are only cached there for the sake of efficiency, and it can always regenerate the files on demand), so you should not use this folder to store any valuable files. Replace the placeholder with the path to the folder under which you want Arduino to store some fundamental "built-in" Arduino libraries. Replace the placeholder with the path to the folder under Arduino IDE stores libraries you install via Boards Manager, as well as some other data files. Replace the placeholder with the path you want to use as the Arduino sketchbook (the folder under Arduino IDE stores libraries you install via Library Manager and "Add .ZIP Library...", as well as a convenient location to save your sketches). Unlike the other paths, you can also configure this one via Arduino IDE's preferences GUI. I thought I should include it in these instructions just to be comprehensive. Save the file. Move the files from this folder on your hard drive:C:\Users\\AppData\Local\Arduino15\libraries(where is your Windows username) to the folder you configured in step (5) above (""). If you configured a different sketchbook folder location in step (7) above, move the files from the previous sketchbook folder location to the new one. Start Arduino IDE. I also found an alternative workaround, which is perhaps a bit risky so I don't necessarily recommend it, but maybe of interest to advanced users so I'll add a link to it: 1 Like If you are using a recent version of the IDE, you will get an auto-update offer simply by starting the IDE.Otherwise, the release is available for download here: This release provides some nice advancements and fixes. Thanks so much to the forum community for all the valuable testing and enhancements! Deprecation notice: Upcoming cessation of support for Linux distros using glibc 2.28 Recent changes in the framework used to produce automated release of Arduino IDE resulted in the loss of compatibility of the Linux builds with older Linux distro versions that can be used with these distro versions. Future releases (including nightly and tester builds) will fail to start on machines using these distro versions with an error like: Error: node-loader: Error: /lib/x86 64-linux-gnu/libc.so.6: version `GLIBC 2.28' not found (required by /home/foo/arduino-ide/resources/app/lib/backend/native/pty.node) at 85467 (/home/foo/arduino-ide/resources/app/lib/backend/main.js:2:2766) at webpack require (/home/foo/arduino-ide/resources/app/lib/backend/main.js:2:3374073) at webpack require (/home/foo/arduino-ide/resources/app/lib/backend/main.js:2:6663105) at 55444 (/home/foo/arduino-ide/resources/app/lib/backend/main.js:2:1770138) at __webpack_require_ (/home/foo/arduino-ide/resources/app/lib/backend/main.js:2:6663105) If you don't know which version of glibc your machine is using, run this from the terminal:/lib/x86_64-linux-gnu/libc.so.6Further technical details are available here. The recommended path forward is to update to a modern version of Linux. If you can't or won't do that, you can update to the last compatible version of Arduino IDE, 2.3.4, and then avoid updating when future releases (e.g., 2.3.5) come out. There are two methods for dealing with these update offers. I'll provide instructions for both of them. You can pick whichever one of the two is most convenient for you. "SKIP VERSION"The "Update Available" dialog contains a "SKIP VERSION" button. If you click the button. The dialog will appear once again each time Arduino releases a new version of Arduino IDE, so you will need to click the button again after each release. That is slightly inconvenient, but the release cycle is fairly long so I don't think it will be very burdensome. Disable to completely disable and the release cycle is fairly long so I don't think it will be very burdensome. Disable to completely disable and the release cycle is fairly long so I don't think it will be very burdensome. Disable to completely disable and the release cycle is fairly long so I don't think it will be very burdensome. Disable to completely disable to for your installed boards platforms and libraries. Press the Ctrl+Shift+P for macOS users) to open the "Command Falette". A menu will appear on the editor toolbar: Select the "Preferences: Open Settings (UI)" command from the menu. You can scroll down through the list of commands to find it or type the name in the field.A "Preferences" tab will open in the Arduino IDE main panel. Type arduino. Check For Updates in the "Preferences" tab. Uncheck the box under the "Arduino Dependencies Updated fyou chose this "Disable All Update Offers" method, make sure to periodically check to see if newer versions of your installed boards platforms and libraries are available. You can do this by opening Boards Manager and then setting the "Type" menu to "Updatable", then repeating the process with Library Manager. There is no possibility of a problem using newer versions of Arduino libraries on a computer with an older version of Linux, so don't worry about an incompatibility when updating your libraries. It is theoretically possible that some future version of a boards platform stopped working after an update, you can always easily downgrade the platform back to the last working version via the Arduino-ide#2571, arduino/arduino-ide#2562, arduino/arduino-cli#2719A bug was introduced in Arduino IDE 2.3.3 that caused operations such as downloading Boards Manager package index files to hang if performed while Serial Monitor or Serial Plotter is open. The bug has now been fixed. (Thanks @k5map and @starthemorning) Fix bug causing failed uploads to be indicated as successfularduino-ide#2518, arduino-ide#2518, arduino-ide#2518. termination of an upload operation, Arduino IDE displays a notification to communicate the result to the user. A bug was introduced in Arduino IDE 2.3.3 that caused the IDE to display the upload success notification even when the upload failed. This bug has now been fixed. Fix compilation caching when library installation or cache path contains non-ASCII charactersarduino/arduino-ide#2571, arduino/arduino-cli#2733, arduino/arduino-cli#2671In order to reduce the sketch compilations when appropriate. Previously, the caching did not work when libraries were installed under a path containing non-ASCII characters, or when the path where the cached files are stored contained such characters. This resulted in unnecessarily long compilation durations for the affected users. (Thanks @g91 y and @vvb333007) Fix hang on startup when Raspberry Pi Pico/RP2040 platform installed arduino/arduino-ide#2571, arduino/arduino-cli#2707, arduino/arduino-cli#2665, arduino/pluggable-discovery-protocol-handler#50Previously, Arduino IDE would sometimes hang on startup if the user had previously installed @earlephilhower's excellent "Raspberry Pi Pico/RP2040" boards platform. Compatibility with that platform has now been restored. Kill tool process when upload is canceledarduino/arduino-ide#2571, arduino/arduino-ide#2517, arduino-ide#2517, ar fail eventually). Previously, the button affected the Arduino IDE GUI, but didn't actually cancel the underlying process from the "canceled" operation. The upload tool process is now killed when the button is clicked. Display a more helpful message when cryptographic signature validation fails due to incorrect system timearduino-ide#2571, arduino/arduino-cli#2750Index files used by Arduino IDE are cryptographically signed. Arduino IDE are cryptographically signed. Arduino IDE are cryptographically signed to incorrect system timearduino-cli#2750Index files used by Arduino IDE are cryptographically signed. the validation will fail due the signature being considered invalid at any time prior to the timestamp. This causes Arduino IDE to hang on startup, with an "Error message in the logs. The error message in the logs. Th correctly?".Don't fail platform installation on mismatch with size fields of package indexarduino/arduino-cli#2332The Arduino/arduino-cli#2332The Arduino-cli#2332The Arduinoboards platforms to be included by adding URLs to the "Additional Boards Manager URLs" preference. The purpose of the checksum and file size for each of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. The purpose of the files that will be downloaded by Arduino IDE. 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Previously, Arduino IDE 2.x validated the file size against the checksum. Improve resiliency to errors in package indexes arduino/arduino-ide#2571, arduino/arduino-cli#2713The Arduino IDE Boards Manager is populated by data from index files. In addition to the primary index file maintained by Arduino boards platforms to be included by adding URLs to the "Additional Boards Manager URLs" preference. The maintainers of the package index files occasionally introduce errors in the data format, which might impact the functionality of Arduino IDE is now able to more gracefully handle such errors. Display donation links on Arduino IDE is now able to more gracefully handle such errors. Display donation links on Arduino IDE is now able to more gracefully handle such errors. Display donation links on Arduino IDE is now able to more gracefully handle such errors. Display donation links on Arduino IDE is now able to more gracefully handle such errors. Display donation links on Arduino IDE is now able to more gracefully handle such errors. Display donation links on Arduino IDE is now able to more gracefully handle such errors. Display donation links on Arduino IDE is now able to more gracefully handle such errors. Display donation links on Arduino IDE is now able to more gracefully handle such errors. Display donation links on Arduino IDE is now able to more gracefully handle such errors. Display donation links on Arduino IDE is now able to more gracefully handle such errors. are free open source software. This software benefits the entire Arduino community, even those who do not use the boards sold by Arduino. The institute and on the first start after an update. Fix memory leak when scanning sketchbooks with large foldersarduino/arduino-ide#2555, arduino/arduino-ide#2557 arduino/arduino-ide#2557 arduino/arduino-ide#2571, arduino-ide#2571, arduino/arduino-ide#2571, arduino-ide#2571, arduino-ide# cli#2718Previously, compilation would fail spuriously if any sketch code file was larger than 4 MB. The maximum sketch file size has now been increased to 16 MB. (Thanks @jacek kander)Store all temporary files in path indicated by build cache.patharduino-arduino-cli#2673, arduino/arduino-cli#2668When a sketch is compiled, Arduino IDE stores the generated files in a temporary folder. It is possible to configure the path under which the files are stored via Arduino CLI's build cache.path configuration only controlled where the generated Arduino core library files were cached, while sketch and library files were still stored in the default location. All generated files are now stored under the path specified by the build cache.path configuration file. Align viewsWelcome behavior to VS Codearduino/arduino-ide#2543This change allows Arduino IDE extension developers to accomplish certain UI designs. (Thanks @dankeboy36 and @pjrc) Expand and improve translations arduino/arduino-ide#2571, arduino-ide#2571, arduino-ide#2571, arduino-ide#2571, arduino-ide#2571, arduino-ide#2571, arduino-ide#2571, arduino-ide#2571, arduino-UI continues, reaching high coverage levels for 18 languages/locales. If you would like to contribute to the Arduino IDE translations, please see the information here: Arduino IDE comes from the Arduino CLI dependency to 1.1.1 arduino/arduino-ide#2571 Much of the non-GUI functionality of Arduino IDE comes from the Arduino CLI dependency to 1.1.1 arduino/arduino-ide#2571 Much of the non-GUI functionality of Arduino IDE comes from the Arduino IDE come development work in the Arduino CLI project, Arduino IDE has been updated to using Arduino CLI version 1.1.1. Full changelog here: If you have any questions or feedback please post here in the dedicated forum category for Arduino IDE 2.x: you want to see the list of known issues, work in progress, submit a formal report, or contribute to development, the Arduino IDE 2.x source code is hosted in this public repository:

- https://cicekfilesi.com/uploads/_thumbs/files/67893313923.pdf
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