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Arduino y ATMega328P

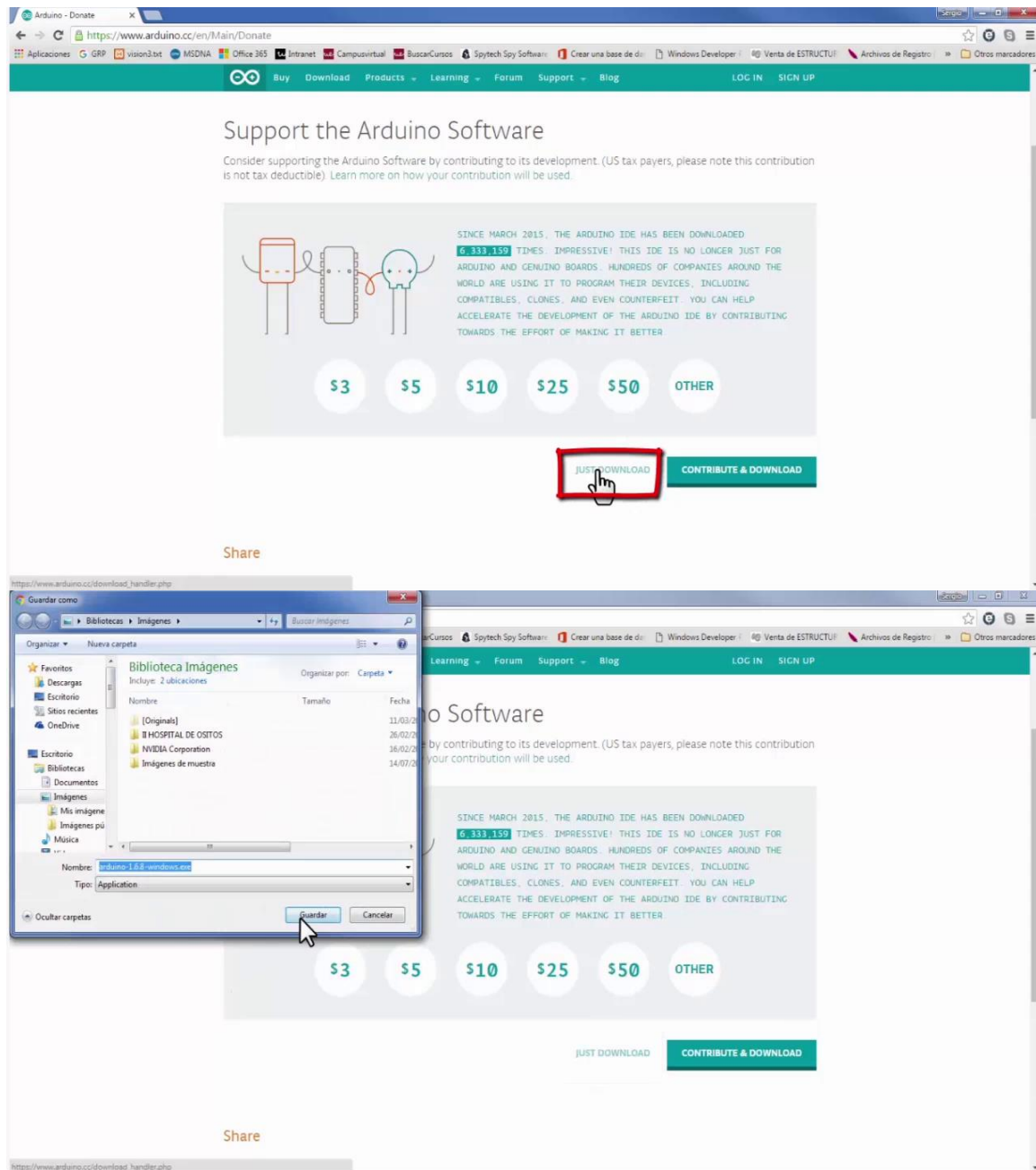
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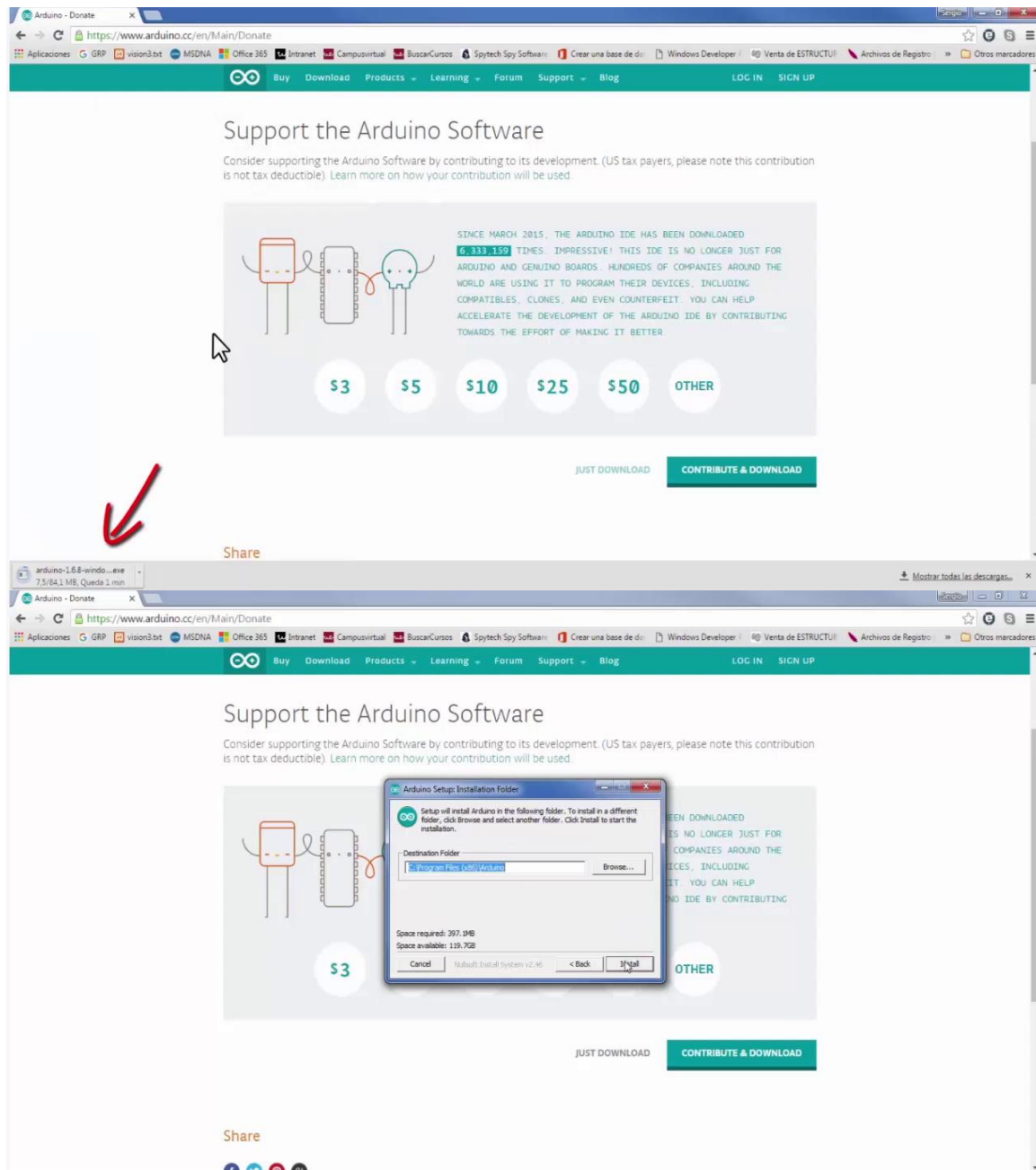




The screenshot shows the Arduino website's main page and the 'Download' section. In the top navigation bar, the 'Download' link is highlighted with a red box. Below, the 'Download the Arduino Software' section is displayed. In this section, the 'Windows Installer' link is highlighted with a red box and a mouse cursor. Other visible links include 'Mac OS X 10.7 Lion or newer', 'Linux 32 bits', 'Linux 64 bits', 'Release Notes', 'Source Code', and 'Checksums'. The page also features a 'Genuino' logo and various promotional banners for Arduino IDE 1.6.8 and Arduino Day 2016.



The screenshot shows the Arduino website's donation page. The main heading is "Support the Arduino Software". Below it, a text block states: "Consider supporting the Arduino Software by contributing to its development. (US tax payers, please note this contribution is not tax deductible). Learn more on how your contribution will be used." A graphic shows three stylized figures representing the Arduino IDE, with text stating: "SINCE MARCH 2015, THE ARDUINO IDE HAS BEEN DOWNLOADED 6,333,159 TIMES. IMPRESSIVE! THIS IDE IS NO LONGER JUST FOR ARDUINO AND GENUINO BOARDS. HUNDREDS OF COMPANIES AROUND THE WORLD ARE USING IT TO PROGRAM THEIR DEVICES, INCLUDING COMPATIBLES, CLONES, AND EVEN COUNTERFEIT. YOU CAN HELP ACCELERATE THE DEVELOPMENT OF THE ARDUINO IDE BY CONTRIBUTING TOWARDS THE EFFORT OF MAKING IT BETTER." Below this, there are five circular buttons for donation amounts: \$3, \$5, \$10, \$25, and \$50, followed by an "OTHER" button. A red box highlights the "JUST DOWNLOAD" button, and a green button labeled "CONTRIBUTE & DOWNLOAD" is visible. A "Share" link is also present. Overlaid on the bottom left is a Windows File Explorer window titled "Biblioteca Imágenes". It shows a list of images with columns for "Nombre", "Tamaño", and "Fecha". The list includes "(Originals)", "HOSPITAL DE OSITOS", "NVIDIA Corporation", and "Imágenes de muestra". The "Nombre" field is set to "arduino-1.8.3-windows.exe" and the "Tipo" is "Application". The "Guardar" button is highlighted.

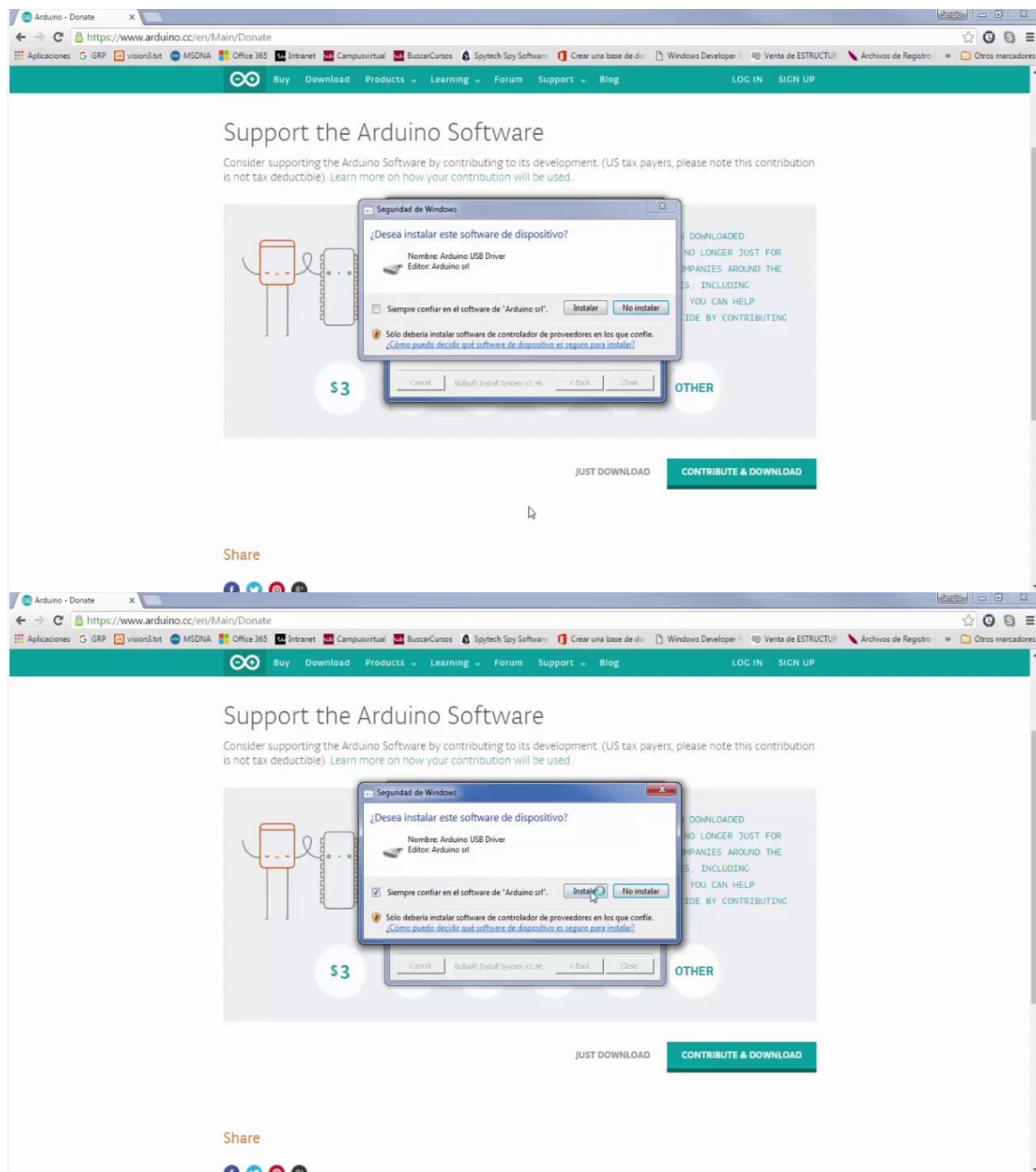


The image shows a screenshot of the Arduino website's donation page. The browser address bar shows the URL <https://www.arduino.cc/en/Main/Donate>. The page title is "Support the Arduino Software". Below the title, there is a paragraph: "Consider supporting the Arduino Software by contributing to its development. (US tax payers, please note this contribution is not tax deductible). Learn more on how your contribution will be used."

The main content area features a donation interface. On the left, there is a cartoon illustration of an Arduino board with a lightbulb above it. To the right of the illustration, text states: "SINCE MARCH 2015, THE ARDUINO IDE HAS BEEN DOWNLOADED 6,338,159 TIMES. IMPRESSIVE! THIS IDE IS NO LONGER JUST FOR ARDUINO AND GENUINO BOARDS. HUNDREDS OF COMPANIES AROUND THE WORLD ARE USING IT TO PROGRAM THEIR DEVICES, INCLUDING COMPATIBLES, CLONES, AND EVEN COUNTERFEIT. YOU CAN HELP ACCELERATE THE DEVELOPMENT OF THE ARDUINO IDE BY CONTRIBUTING TOWARDS THE EFFORT OF MAKING IT BETTER."

Below the text, there are five circular buttons for donation amounts: "\$3", "\$5", "\$10", "\$25", and "\$50", followed by an "OTHER" button. A red arrow points to the "\$3" button. Below the buttons, there are two buttons: "JUST DOWNLOAD" and "CONTRIBUTE & DOWNLOAD".

At the bottom of the page, there is a "Share" button. A file download window is open, showing the file "arduino-1.6.8-win32.exe" (7.5/64.1 MB, Quota 1 min). The window also shows the file name "arduino-1.6.8-win32.exe" and the file size "7.5/64.1 MB, Quota 1 min".



Arduino

ue

Instalación del Software: Atmel Studio 8

<http://www.atmel.com/Microsite/atmel-studio/>

Atmel Studio 7
Easier to Use and
More Powerful than Ever

DOWNLOAD NOW

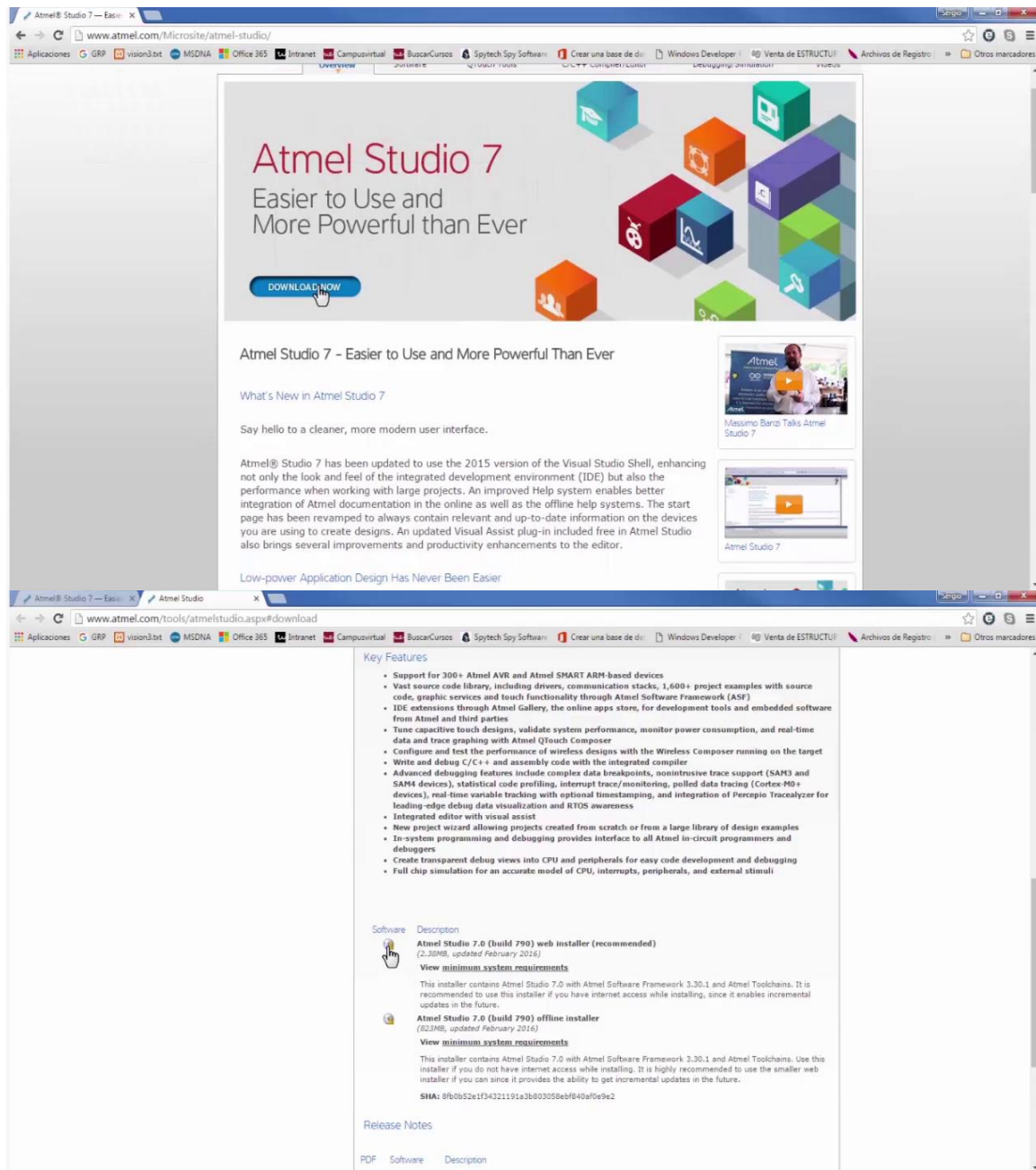
Atmel Studio 7 - Easier to Use and More Powerful Than Ever

What's New in Atmel Studio 7

Say hello to a cleaner, more modern user interface.

Atmel® Studio 7 has been updated to use the 2015 version of the Visual Studio Shell, enhancing not only the look and feel of the integrated development environment (IDE) but also the performance when working with large projects. An improved Help system enables better integration of Atmel documentation in the online as well as the offline help systems. The start page has been revamped to always contain relevant and up-to-date information on the devices

Massimo Bardi Talks Atmel Studio 7



The screenshot shows the Atmel Studio 7 website. The top section features the title "Atmel Studio 7" and the tagline "Easier to Use and More Powerful than Ever". Below this is a "DOWNLOAD NOW" button. The middle section, titled "Atmel Studio 7 - Easier to Use and More Powerful Than Ever", describes the updates to the IDE, including the use of the 2015 Visual Studio Shell, improved help systems, and a revamped start page. It also mentions a "Low-power Application Design Has Never Been Easier".

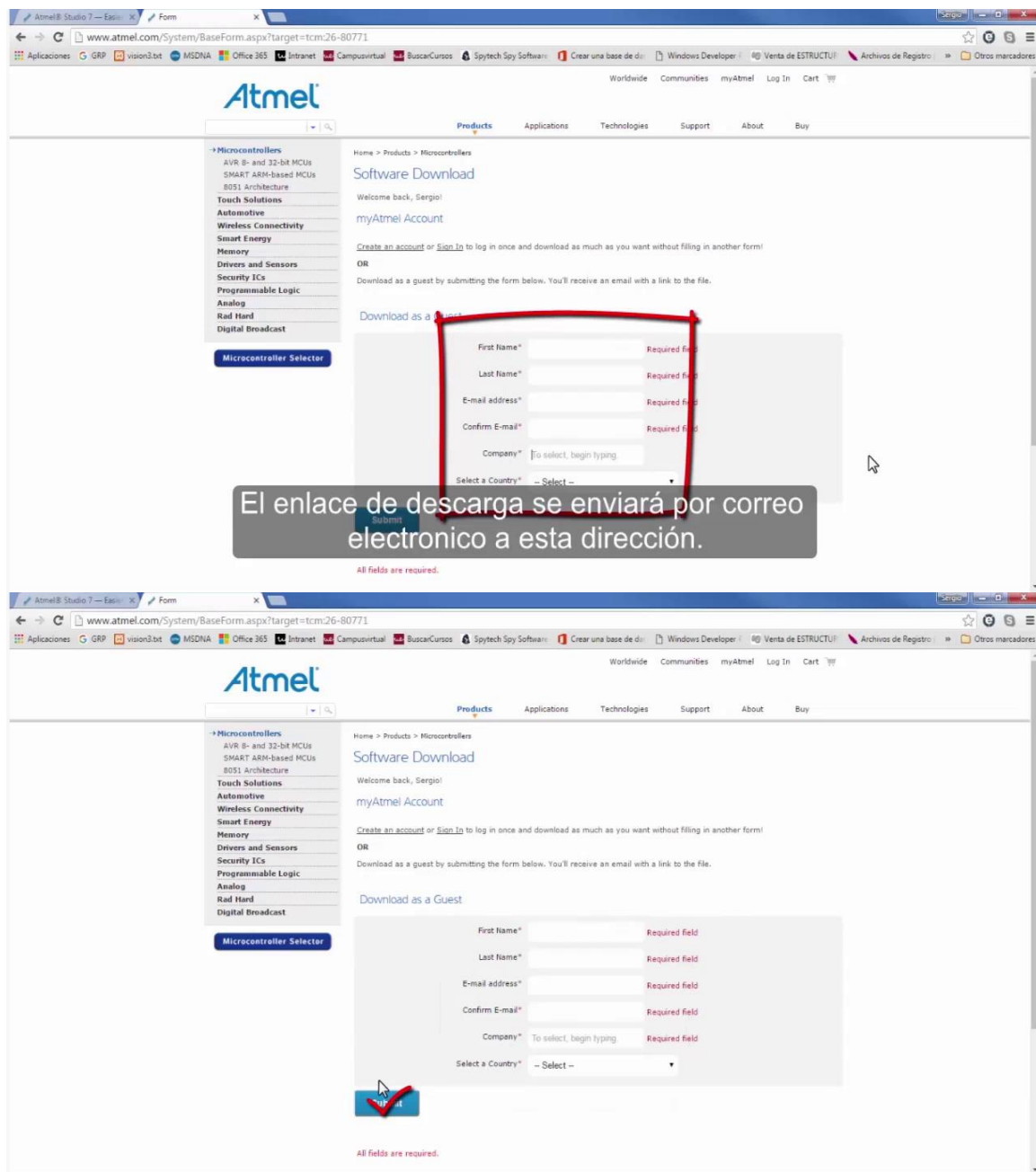
The bottom section, titled "Key Features", lists the following:

- Support for 300+ Atmel AVR and Atmel SMART ARM-based devices
- Vast source code library, including drivers, communication stacks, 1,600+ project examples with source code, graphic services and touch functionality through Atmel Software Framework (ASF)
- IDE extensions through Atmel Gallery, the online apps store, for development tools and embedded software from Atmel and third parties
- Tune capacitive touch designs, validate system performance, monitor power consumption, and real-time data and trace graphing with Atmel QTouch Composer
- Configure and test the performance of wireless designs with the Wireless Composer running on the target
- Write and debug C/C++ and assembly code with the integrated compiler
- Advanced debugging features include complex data breakpoints, nonintrusive trace support (SAM3 and SAM4 devices), statistical code profiling, interrupt trace/monitoring, polled data tracing (Cortex-M0+ devices), real-time variable tracking with optional timestamping, and integration of Percepio Tracalyzer for leading-edge debug data visualization and RTOS awareness
- Integrated editor with visual assist
- New project wizard allowing projects created from scratch or from a large library of design examples
- In-system programming and debugging provides interface to all Atmel in-circuit programmers and debuggers
- Create transparent debug views into CPU and peripherals for easy code development and debugging
- Full chip simulation for an accurate model of CPU, interrupts, peripherals, and external stimuli

Below the key features, there is a "Software" section with a table of installers:

Software	Description
 Atmel Studio 7.0 (build 790) web installer (recommended) (2.33MB, updated February 2016)	View minimum system requirements This installer contains Atmel Studio 7.0 with Atmel Software Framework 3.30.1 and Atmel Toolchains. It is recommended to use this installer if you have internet access while installing, since it enables incremental updates in the future.
 Atmel Studio 7.0 (build 790) offline installer (80.3MB, updated February 2016)	View minimum system requirements This installer contains Atmel Studio 7.0 with Atmel Software Framework 3.30.1 and Atmel Toolchains. Use this installer if you do not have internet access while installing. It is highly recommended to use the smaller web installer if you can since it provides the ability to get incremental updates in the future. SHA: 8fb0b52e1f34321191a3b803058ebf640a9e9e2

At the bottom, there are links for "Release Notes", "PDF", "Software", and "Description".



Atmel

Products Applications Technologies Support About Buy

Microcontrollers
AVR 8- and 32-bit MCUs
SMART ARM-based MCUs
8051 Architecture
Touch Solutions
Automotive
Wireless Connectivity
Smart Energy
Memory
Drivers and Sensors
Security ICs
Programmable Logic
Analog
Rad Hard
Digital Broadcast

Microcontroller Selector

Home > Products > Microcontrollers

Software Download

Welcome back, Sergio!

[myAtmel Account](#)

[Create an account](#) or [Sign In](#) to log in once and download as much as you want without filling in another form!

OR

Download as a guest by submitting the form below. You'll receive an email with a link to the file.

Download as a Guest

First Name* Required field

Last Name* Required field

E-mail address* Required field

Confirm E-mail* Required field

Company* To select, begin typing Required field

Select a Country* -- Select --

[Submit](#)

All fields are required.

El enlace de descarga se enviará por correo electrónico a esta dirección.

Atmel

Products Applications Technologies Support About Buy

Microcontrollers
AVR 8- and 32-bit MCUs
SMART ARM-based MCUs
8051 Architecture
Touch Solutions
Automotive
Wireless Connectivity
Smart Energy
Memory
Drivers and Sensors
Security ICs
Programmable Logic
Analog
Rad Hard
Digital Broadcast

Microcontroller Selector

Home > Products > Microcontrollers

Software Download

Welcome back, Sergio!

[myAtmel Account](#)

[Create an account](#) or [Sign In](#) to log in once and download as much as you want without filling in another form!

OR

Download as a guest by submitting the form below. You'll receive an email with a link to the file.

Download as a Guest

First Name* Required field

Last Name* Required field

E-mail address* Required field

Confirm E-mail* Required field

Company* To select, begin typing Required field

Select a Country* -- Select --

[Submit](#)

All fields are required.

Software Download

www.atmel.com/forms/software-download.aspx?target=tcn:26-80771

URL enviada por email

Software Download

Your Download is Waiting for You

Please use the link below to download the file you requested.

[Atmel Studio 7.0 \(build 790\) web installer \(recommended\)](#)

Guardar como

Equipo > Grande (E) > temp

Organizar Nueva carpeta

Nombre	Fecha de modifica...	Tipo
[Originals]	19/02/2016 18:37	Carpeta c...
1	19/12/2015 21:18	Carpeta c...
1st-propeller-1-napshot7	21/02/2016 9:31	Carpeta c...
6-insh-celtic-symbols-vector-iet	19/12/2015 21:18	Carpeta c...
Z50_WIN7X86_v140	19/12/2015 21:18	Carpeta c...
adafruit-Adafruit-Eagle-Library-fd5ad06	19/12/2015 21:18	Carpeta c...
adafruit-Adafruit-Motor-Shield-library-1...	15/01/2016 9:56	Carpeta c...
apk	19/12/2015 21:18	Carpeta c...
arduino_uno	19/12/2015 21:18	Carpeta c...
bigbusiness	19/12/2015 21:18	Carpeta c...
bluetooth-serve-1-napshot1	19/12/2015 21:18	Carpeta c...
booked-3.5.13	19/12/2015 21:18	Carpeta c...

Nombre: Tipo: Application

Guardar Cancelar

Products Applications Support About Contact Atmel

Microcontrollers Touch Solutions Automotive Wireless Connectivity Smart Energy Memory Drivers and Sensors Security ICS Programmable Logic Analog Real Time Digital Broadcast

Automotive Building Automation Home Appliances Home Entertainment Industrial Automation Lighting Internet of Things (IoT) Smart Energy Mobile Electronics PC Peripherals Wearables

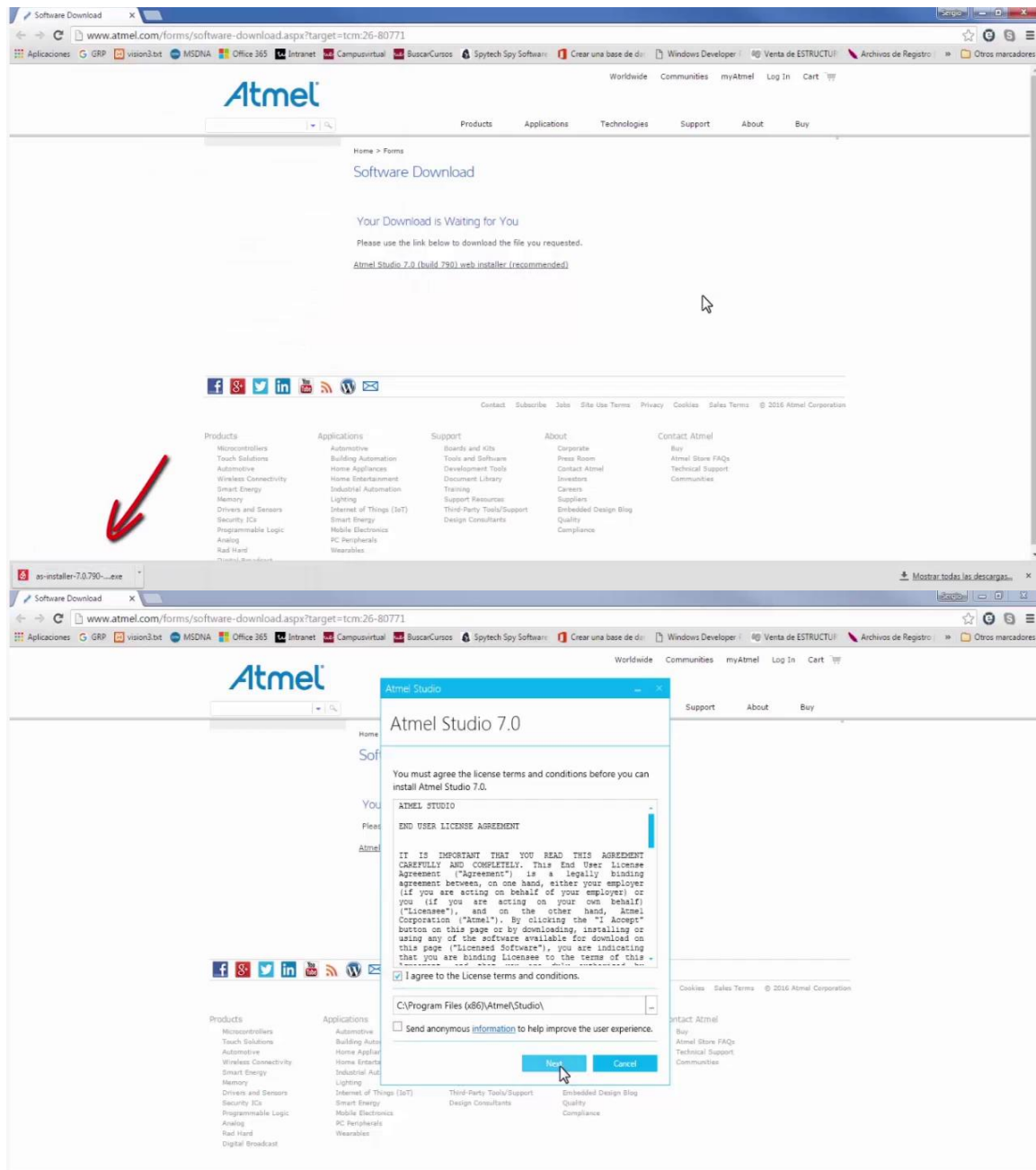
Boards and Kits Tools and Software Development Tools Document Library Training Support Resources Third-Party Tools/Support Design Consultants

Corporate Press Room Contact Atmel Investors Careers Suppliers Embedded Design Blog Quality Compliance

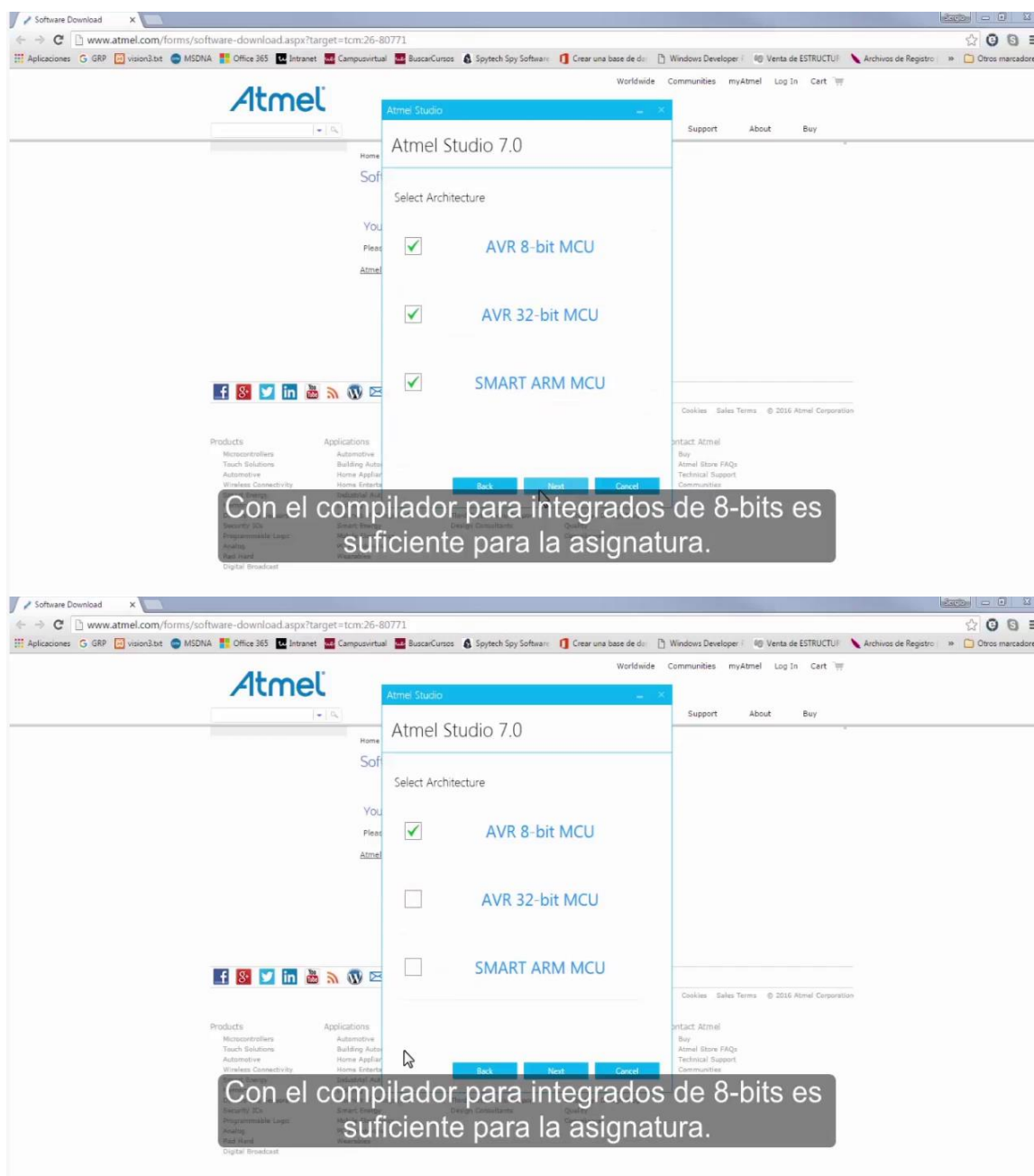
Contact Atmel Buy Atmel Store FAQs Technical Support Communities

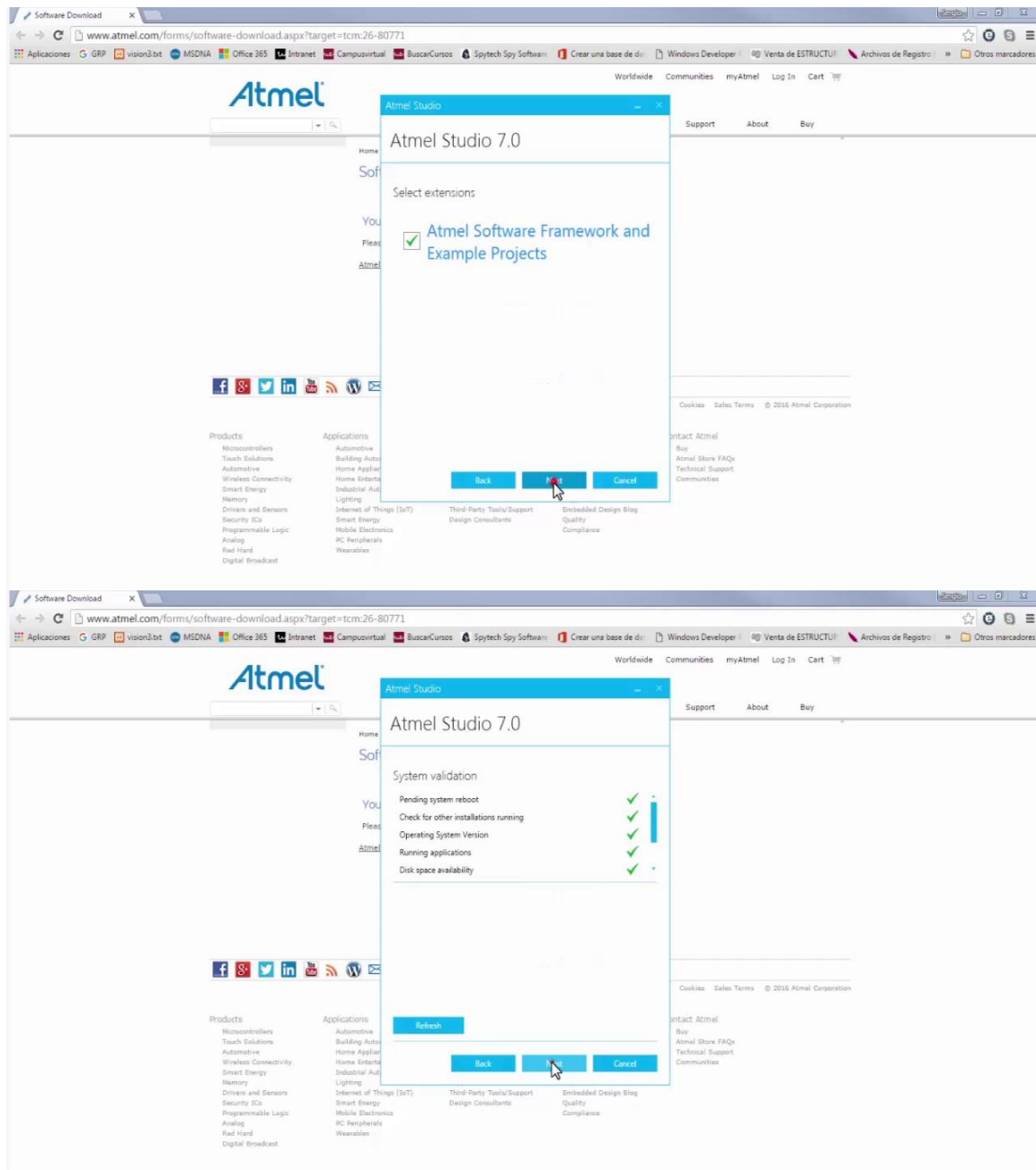
Contact Subscribe Jobs Site Use Terms Privacy Cookies Sales Terms © 2016 Atmel Corporation

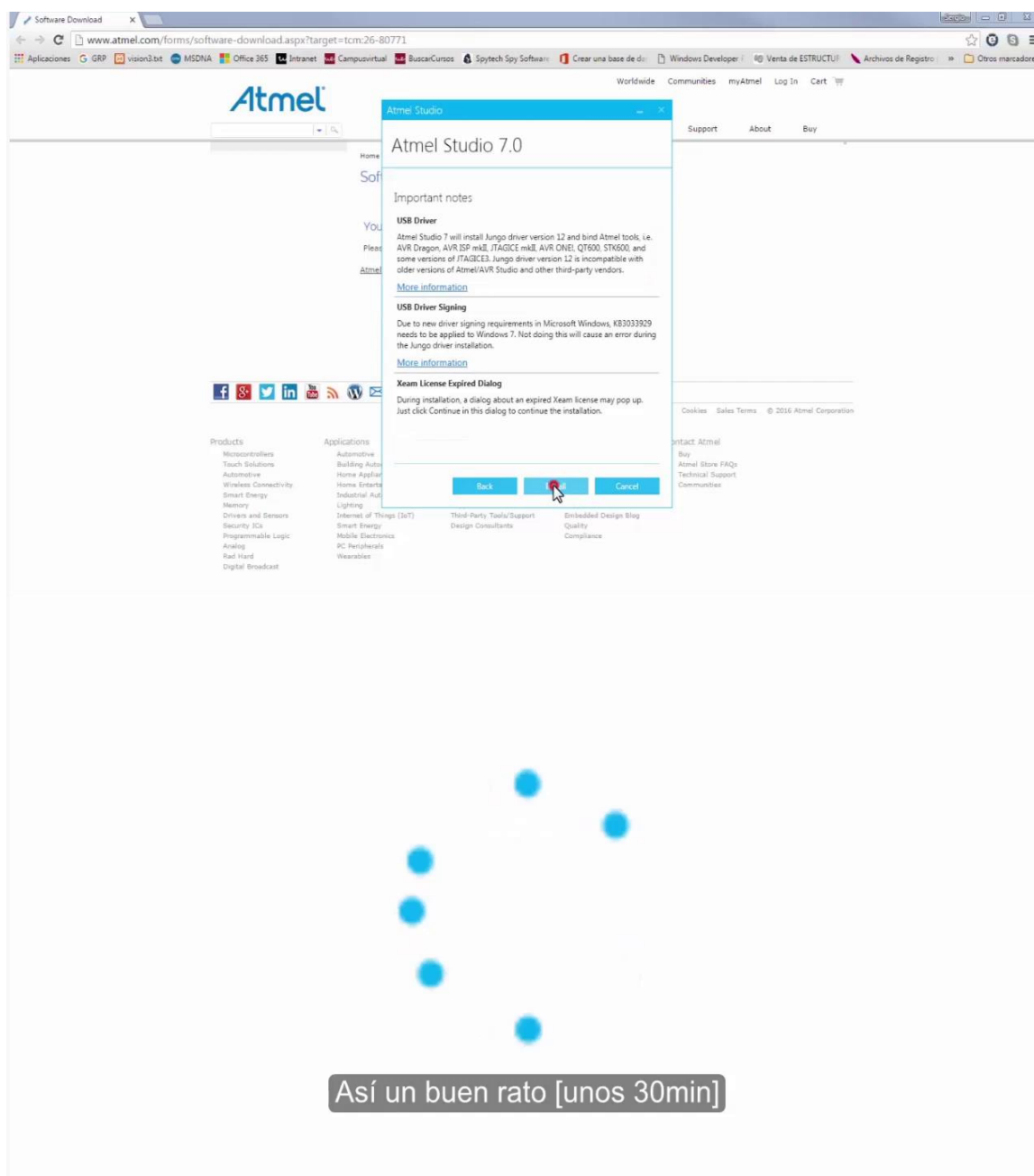
www.atmel.com/System/GetBinary.aspx?target=tcn:26-80771&typesoft&actualTarget=tcn:26-80768



The screenshot shows the Atmel website's 'Software Download' page. The URL in the browser is www.atmel.com/forms/software-download.aspx?target=tcm:26-80771. The page title is 'Software Download' and it says 'Your Download is Waiting for You'. Below this, it says 'Please use the link below to download the file you requested.' and provides a link to 'Atmel Studio 7.0 (build 790) web installer (recommended)'. A red arrow points to the download link in the browser's address bar, which is 'as-installer-7.0.790...exe'. Below the main content, a modal window for 'Atmel Studio 7.0' is displayed, showing the 'End User License Agreement'. The agreement text states: 'IT IS IMPORTANT THAT YOU READ THIS AGREEMENT CAREFULLY AND COMPLETELY. This End User License Agreement ("Agreement") is a legally binding agreement between, on one hand, either your employer (if you are acting on behalf of your employer) or you (if you are acting on your own behalf) ("Licensee"), and on the other hand, Atmel Corporation ("Atmel"). By clicking the "I Accept" button on this page or by downloading, installing or using any of the software available for download on this page ("Licensed Software"), you are indicating that you are binding Licensee to the terms of this...'. There is a checkbox for 'I agree to the License terms and conditions.' which is checked. Below this, there is a text box for the installation path, which is 'C:\Program Files (x86)\Atmel\Studio\'. There is also a checkbox for 'Send anonymous information to help improve the user experience.' which is unchecked. At the bottom of the modal, there are 'Yes' and 'Cancel' buttons. The 'Yes' button is highlighted with a mouse cursor.







Software Download

www.atmel.com/forms/software-download.aspx?target=tcn:26-80771

Atmel

Atmel Studio 7.0

Important notes

USB Driver

Atmel Studio 7 will install Jungo driver version 12 and bind Atmel tools, i.e. AVR Dragon, AVRISP mkII, JTAGICE mkII, AVR ONE! Q7600, STK600, and some versions of JTAGICE3. Jungo driver version 12 is incompatible with older versions of Atmel AVR Studio and other third-party vendors.

[More information](#)

USB Driver Signing

Due to new driver signing requirements in Microsoft Windows, KB3033929 needs to be applied to Windows 7. Not doing this will cause an error during the Jungo driver installation.

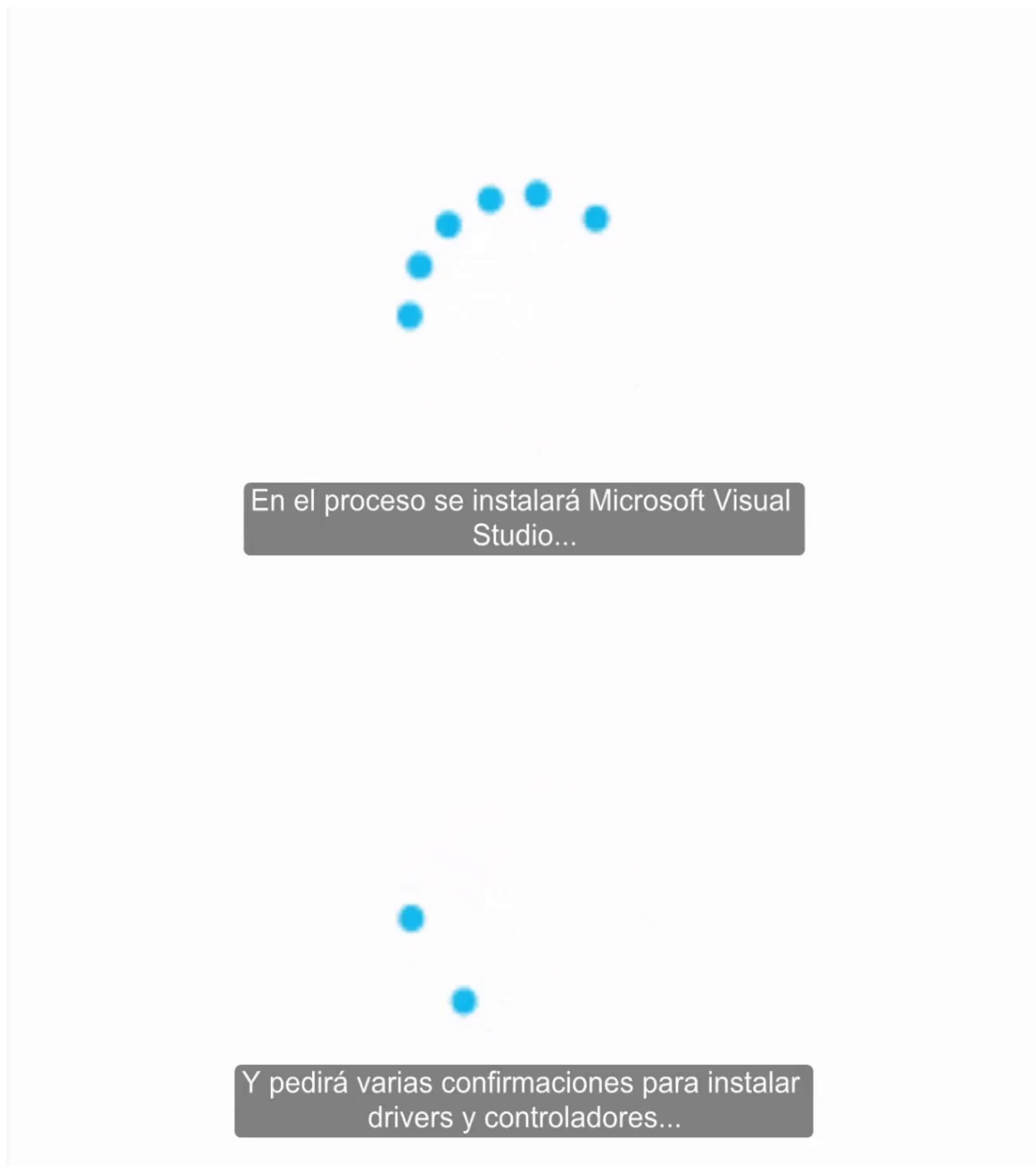
[More information](#)

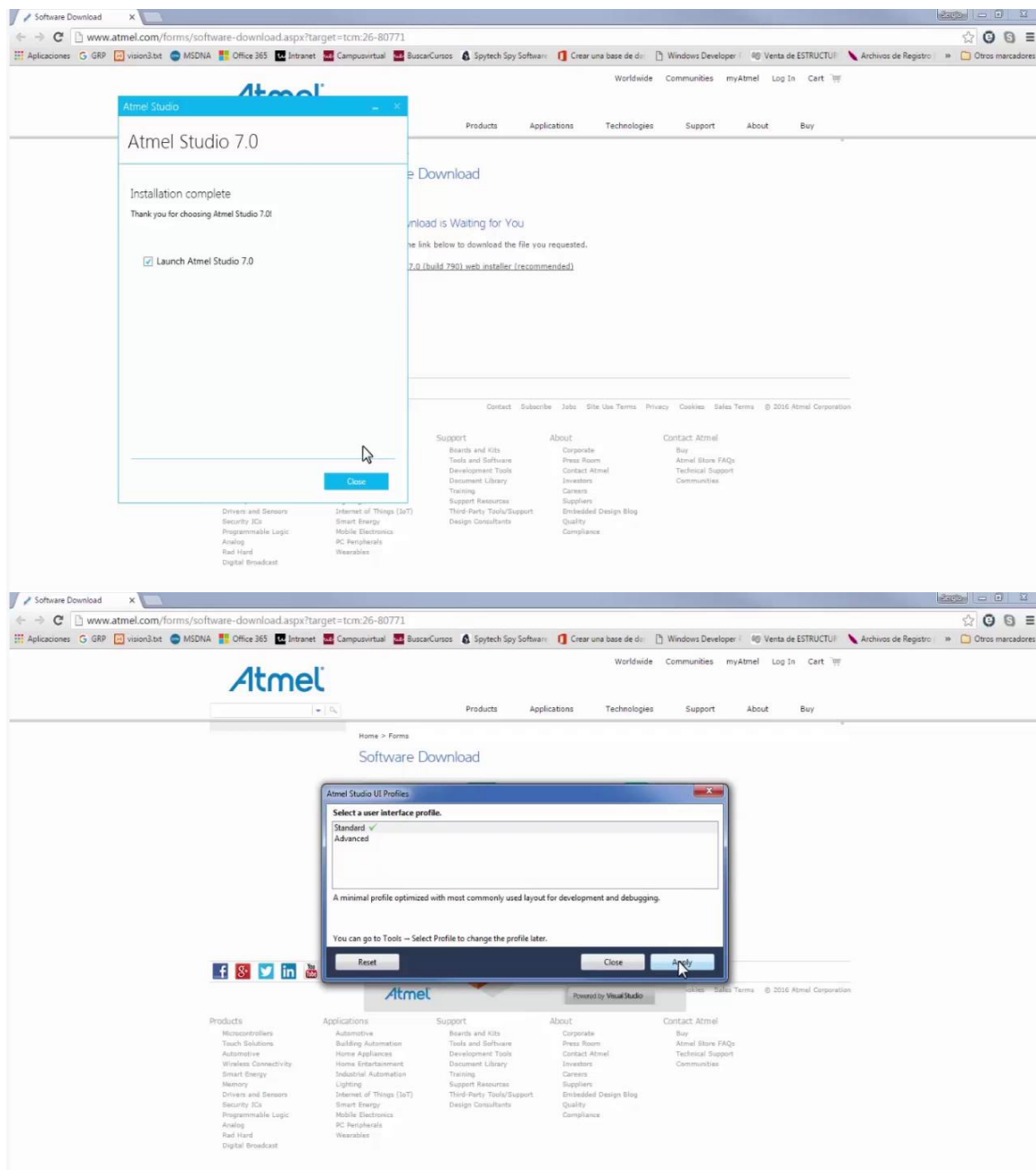
Xeem License Expired Dialog

During installation, a dialog about an expired Xeem license may pop up. Just click Continue in this dialog to continue the installation.

Back Cancel

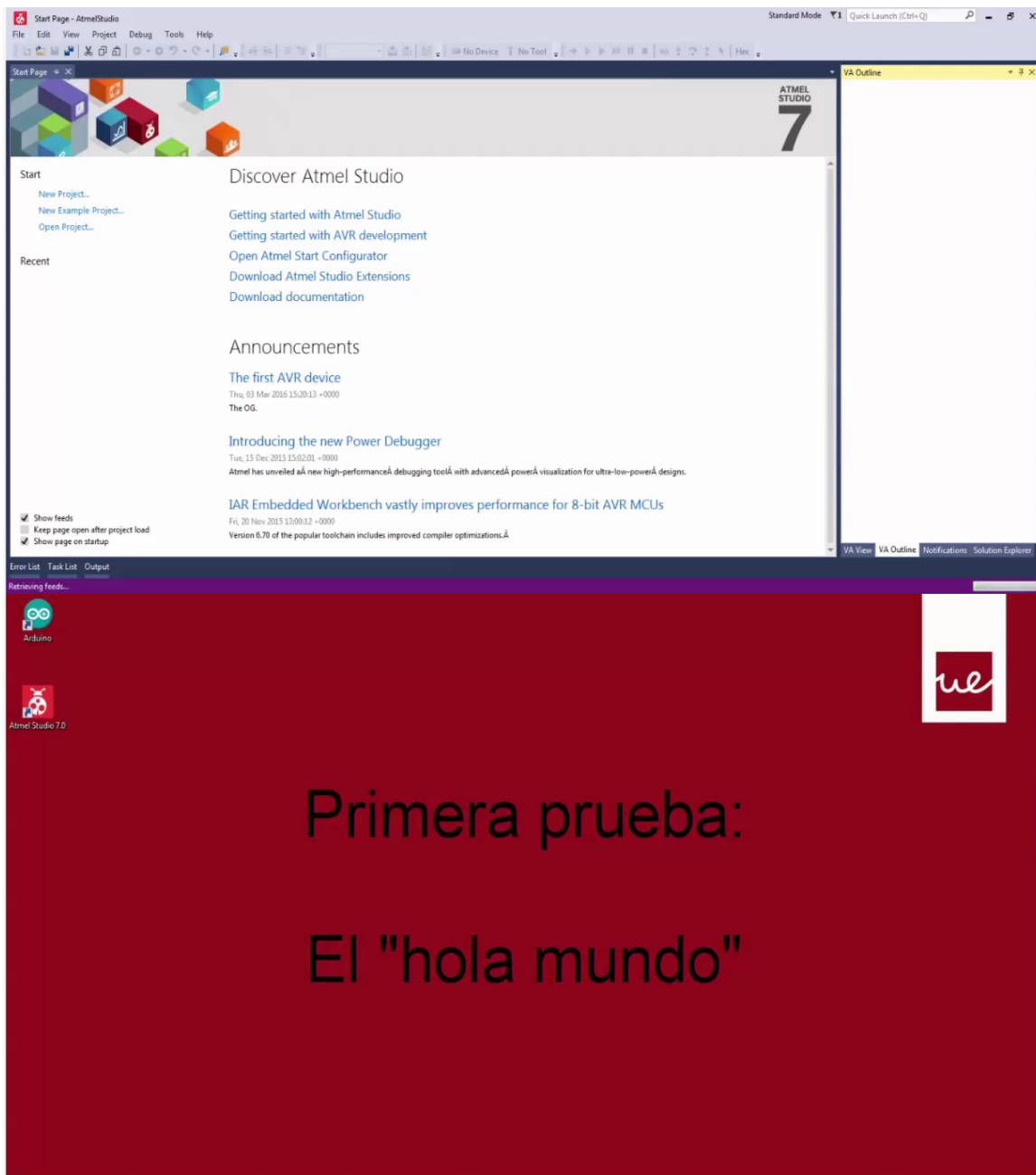
Así un buen rato [unos 30min]





The top screenshot shows the Atmel website with the 'Software Download' page. A dialog box titled 'Atmel Studio 7.0' is displayed, indicating that the installation is complete. The dialog box contains the text 'Thank you for choosing Atmel Studio 7.0!' and a checkbox labeled 'Launch Atmel Studio 7.0' which is checked. A 'Close' button is visible at the bottom right of the dialog box.

The bottom screenshot shows the same Atmel website, but with the 'Atmel Studio UI Profiles' dialog box open. This dialog box prompts the user to 'Select a user interface profile.' and lists two options: 'Standard' (which is selected) and 'Advanced'. Below the list, it states: 'A minimal profile optimized with most commonly used layout for development and debugging.' At the bottom, it says 'You can go to Tools -> Select Profile to change the profile later.' and includes 'Reset', 'Close', and 'Apply' buttons.



Start Page - AtmelStudio

Standard Mode | Quick Launch (Ctrl+Q)

File Edit View Project Debug Tools Help

Start Page

ATMEL STUDIO 7

Start

- New Project...
- New Example Project...
- Open Project...

Recent

Discover Atmel Studio

- Getting started with Atmel Studio
- Getting started with AVR development
- Open Atmel Start Configurator
- Download Atmel Studio Extensions
- Download documentation

Announcements

The first AVR device
Thu, 03 Mar 2016 15:20:13 +0000
The OG.

Introducing the new Power Debugger
Tue, 15 Dec 2015 15:02:01 +0000
Atmel has unveiled a new high-performance debugging tool with advanced power visualization for ultra-low-power designs.

IAR Embedded Workbench vastly improves performance for 8-bit AVR MCUs
Fri, 20 Nov 2015 13:00:12 +0000
Version 6.70 of the popular toolchain includes improved compiler optimizations.

☒ Show feeds
☐ Keep page open after project load
☒ Show page on startup

Error List Task List Output

Retrieving feeds...

Arduino

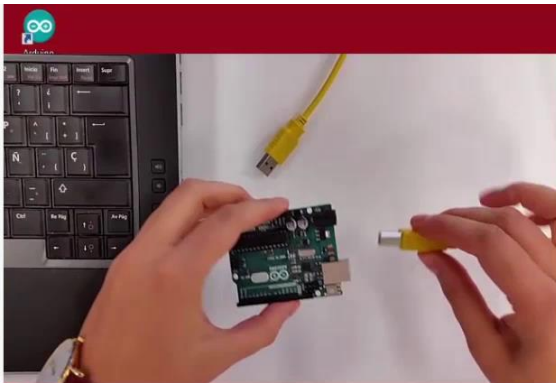
Atmel Studio 7.0

VA Outline

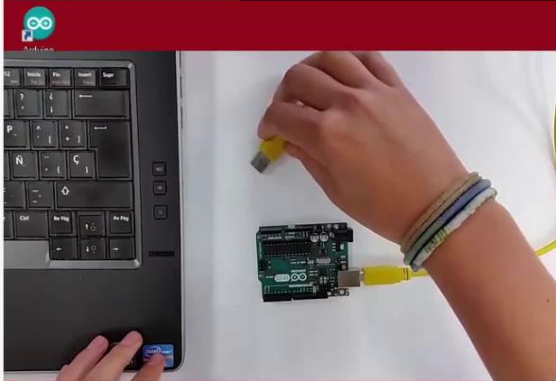
VA View VA Outline Notifications Solution Explorer

Primera prueba:
El "hola mundo"



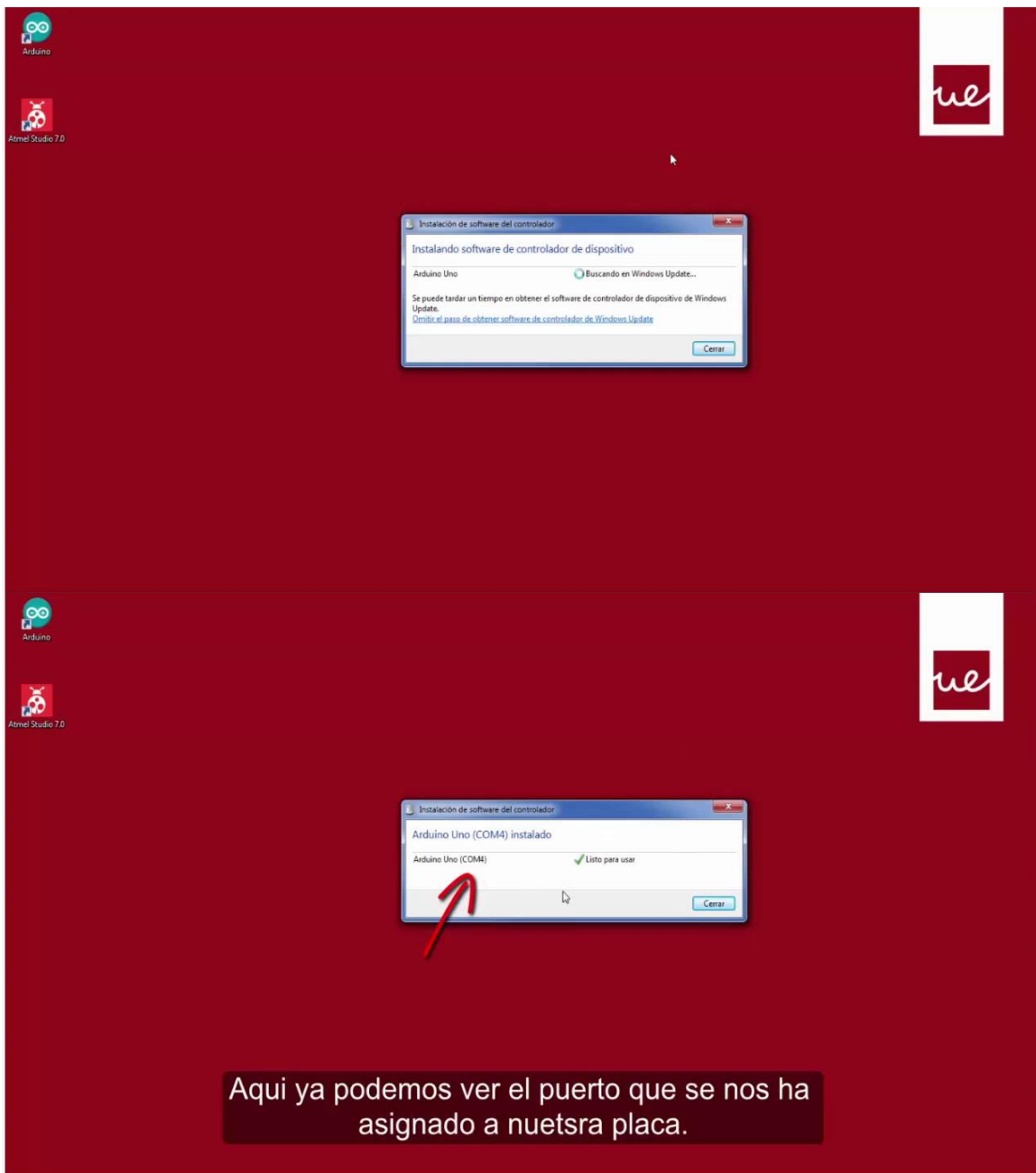


Conectamos nuestra placa arduino al sistema.
Si es la primera vez, nos saldra el mensaje de
driver instalado.



Conectamos nuestra placa arduino al sistema.
Si es la primera vez, nos saldra el mensaje de
driver instalado.





Instalación de software del controlador

Instalando software de controlador de dispositivo

Arduino Uno

Buscando en Windows Update...

Se puede tardar un tiempo en obtener el software de controlador de dispositivo de Windows Update.

[Omitir el paso de obtener software de controlador de Windows Update](#)

Cerrar

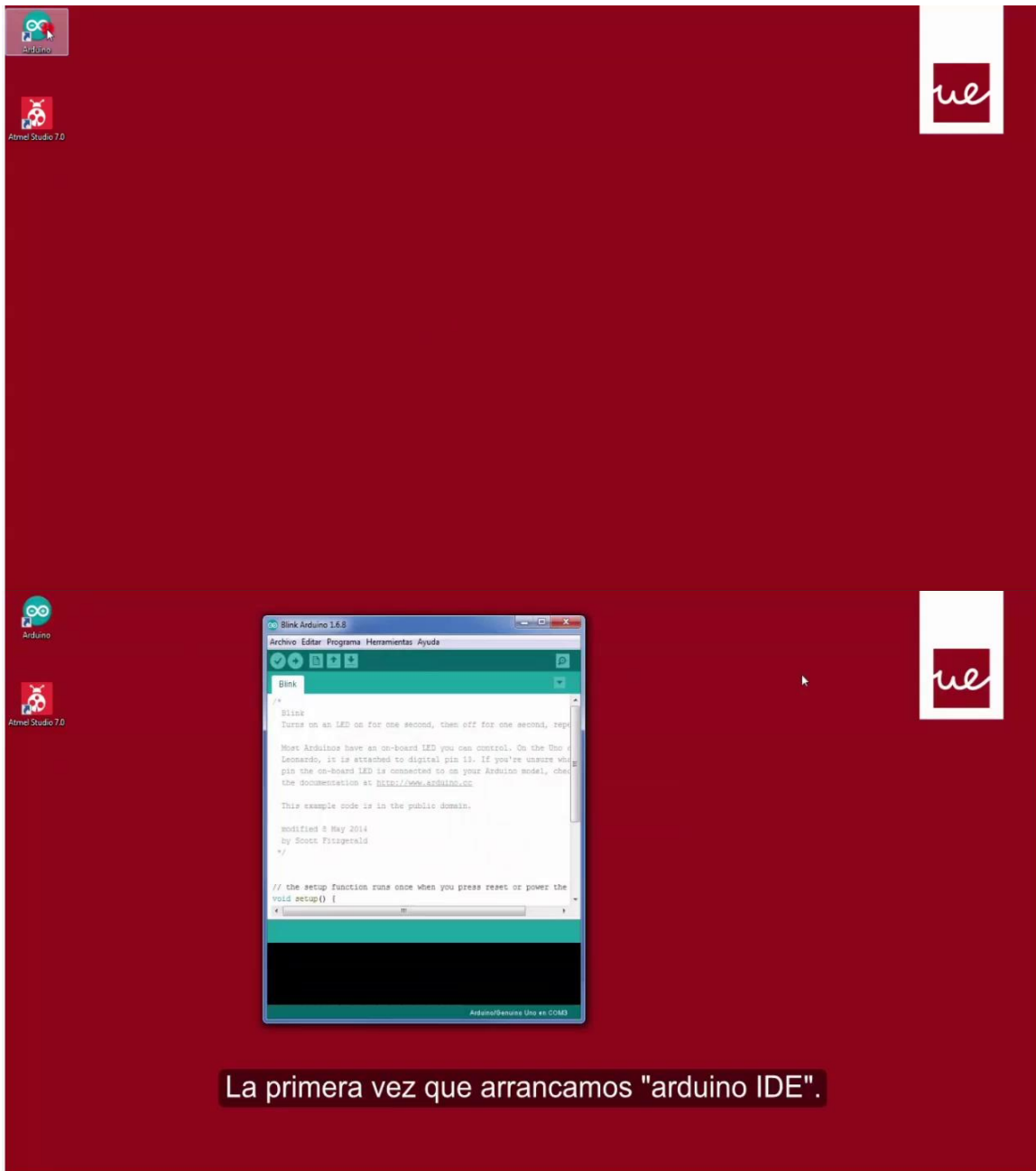
Instalación de software del controlador

Arduino Uno (COM4) instalado

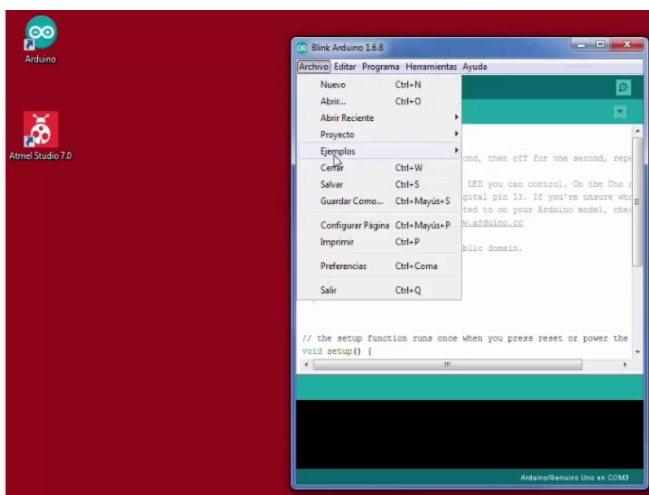
Arduino Uno (COM4) ✓ Listo para usar

Cerrar

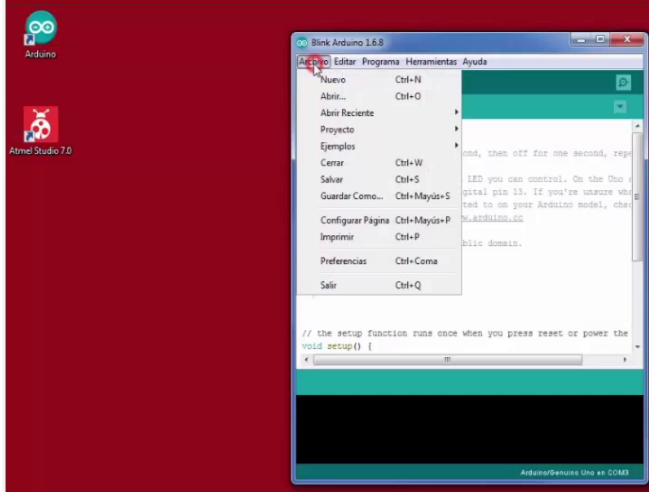
Aquí ya podemos ver el puerto que se nos ha asignado a nuestra placa.



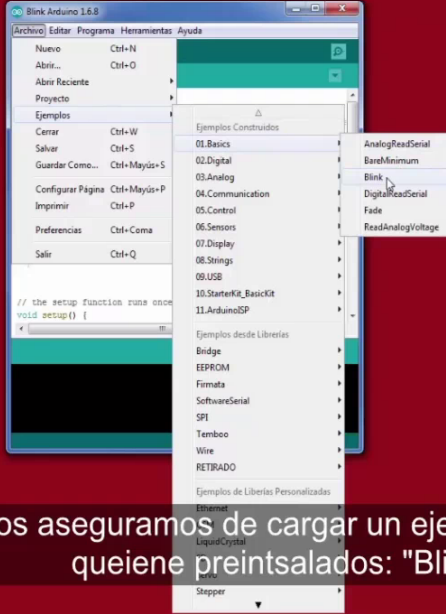
La primera vez que arrancamos "arduino IDE".



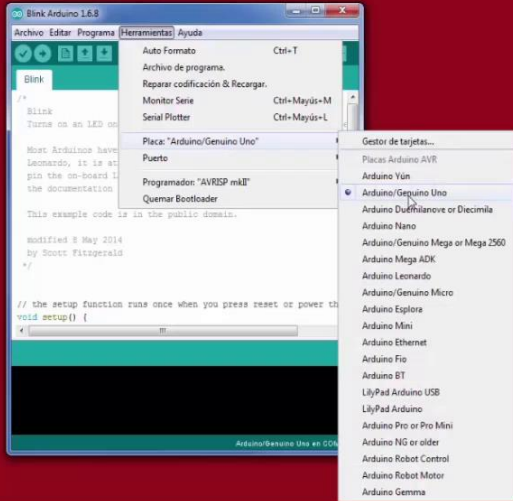
Nos aseguramos de cargar un ejemplo de los que viene preinstalados: "Blink".



La primera vez que arrancamos "arduino IDE".



Nos aseguramos de cargar un ejemplo de los que viene preinstalados: "Blink".



Configuramos la tarjeta Arduino que tenemos: Arduino UNO para mi caso.

The screenshot shows the Arduino IDE interface. The 'Tools' menu is open, and the 'Port' option is selected, showing 'COM4 (Arduino/Genuino Uno)' as the chosen port. The status bar at the bottom indicates 'Arduino/Genuino Uno en COM4'.

Configuramos el puerto de comunicaciones que hemos visto antes: COM4 en mi caso.

The screenshot shows the Arduino IDE interface. The 'Tools' menu is open, and the 'Port' option is selected, showing 'COM4 (Arduino/Genuino Uno)' as the chosen port. The status bar at the bottom indicates 'Arduino/Genuino Uno en COM4'.

Y probamos a compilar y descargar el software en la placa Arduino.

