



# HandAQUS

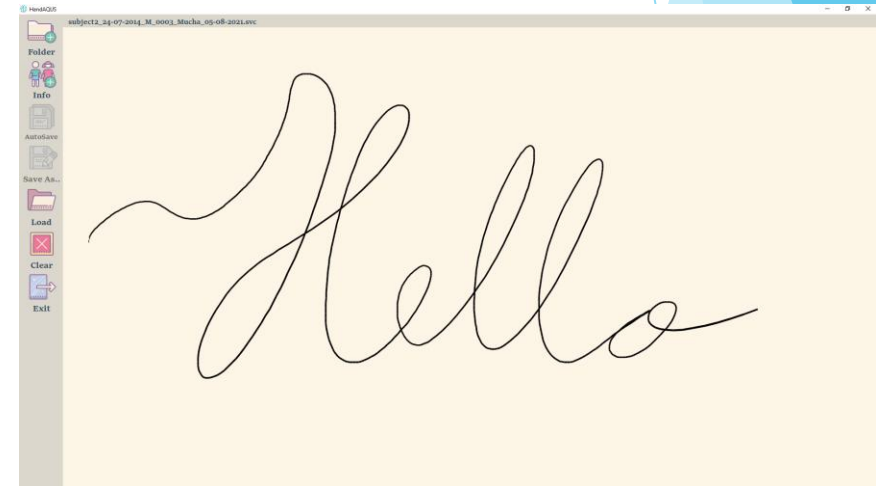
Handwriting Acquisition Software

## User Manual

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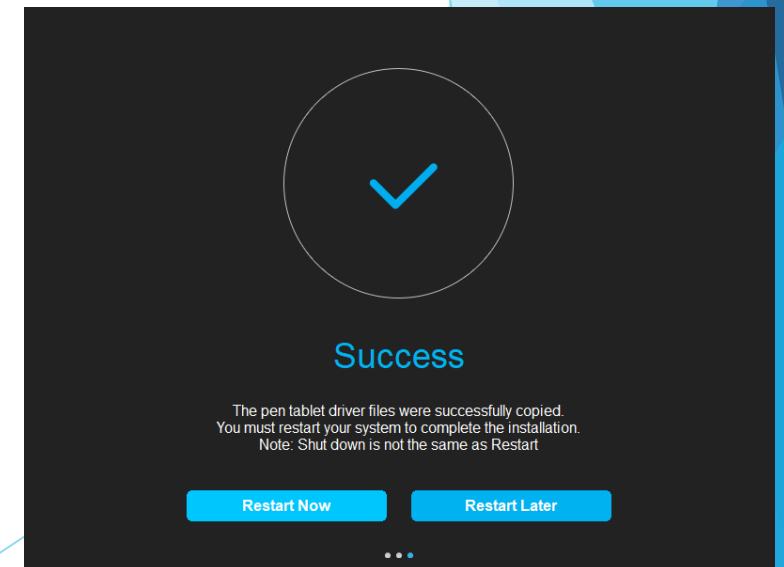
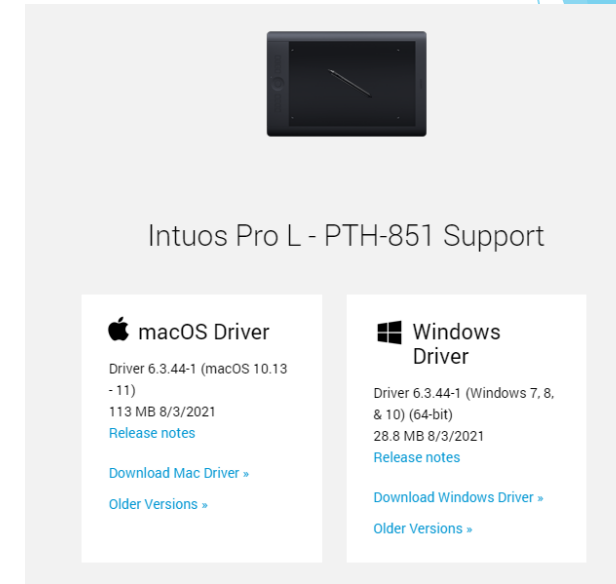
# HandAQUUS

- ▶ HandAQUUS - Handwriting Acquisition Software
- ▶ MIT Licence
- ▶ Software for the acquisition of handwritten data using [Wacom Intuos PRO](#) tablets
- ▶ Uses Wintab API to communicate with the Wacom driver



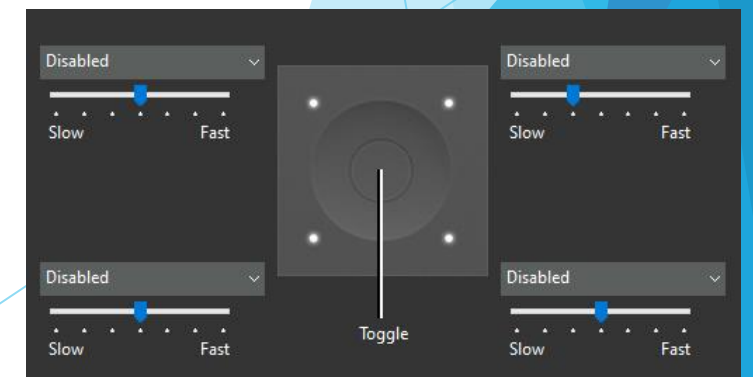
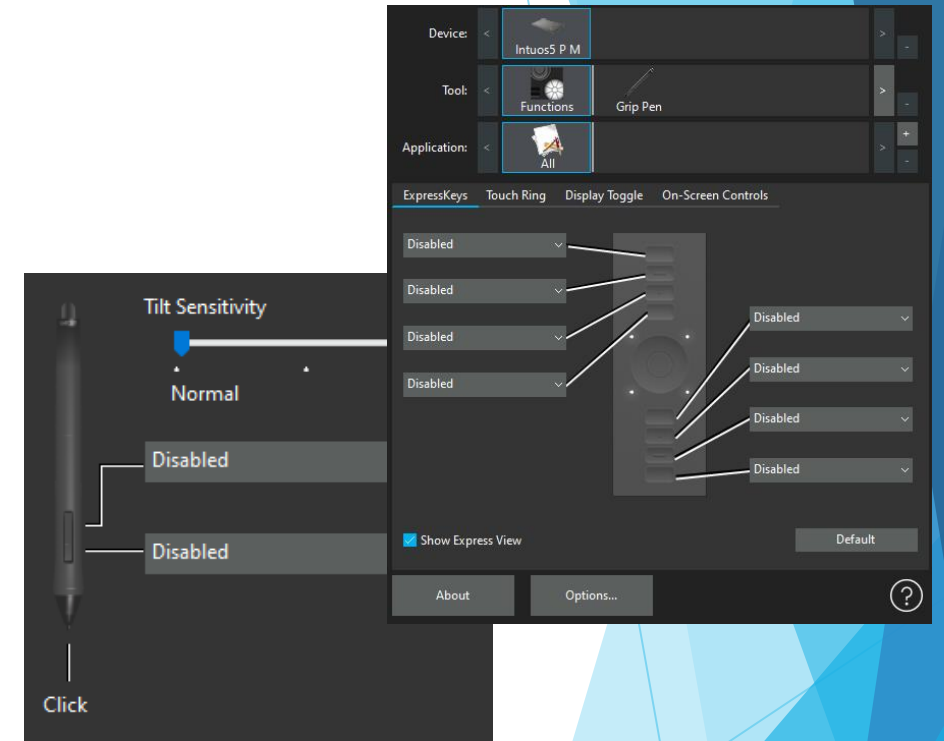
# Requirements

- ▶ Wacom Intuos Pro Tablet connected to Computer
- ▶ Install latest Wacom Drivers
  - ▶ Download latest drivers [here](#)
    - ▶ Search for your device (e.g. Intuos Pro L)
    - ▶ Download driver for Windows
    - ▶ Install driver and follow the instructions
    - ▶ Restart your computer
- ▶ Minimum HW requirements: 2GB RAM, 2.0GHz CPU



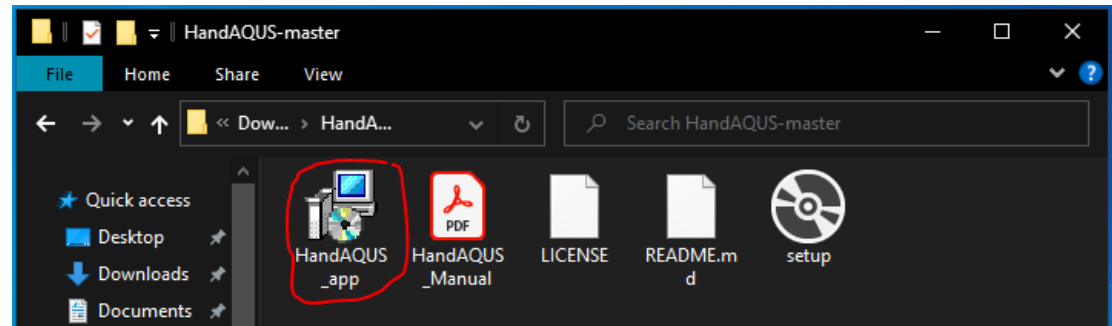
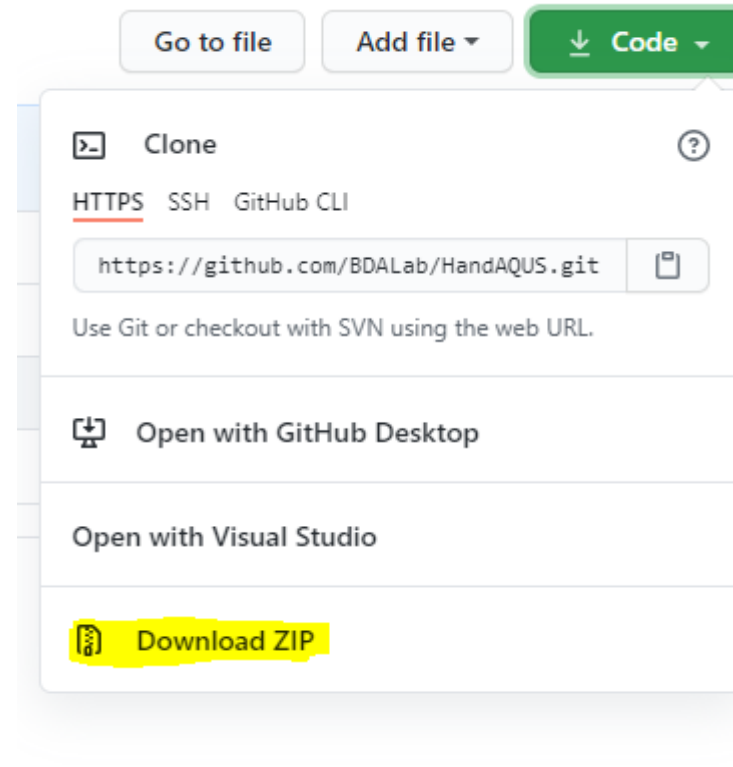
# Wacom Driver Setup (Recommended)

- ▶ To avoid accidental activation of side functions of Wacom tablet during the acquisition, disable these functions in Wacom driver:
  - ▶ Open “Wacom Desktop Center” (installed with the driver)
  - ▶ In “My devices” select your connected Intuos device (e.g. Intuos5 P L)
    - ▶ Click on “ExpressKey setting” and disable all buttons off the tablet (select “Disabled” option for all drop-down menus)
    - ▶ Do the same for “Pen Settings” and “Touch Ring settings”
- ▶ The assessed subject will not be able to control the computer
- ▶ All accidental activation of side functions will be minimized



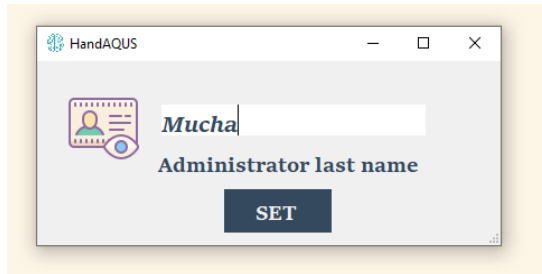
# Software Installation

- ▶ Installation files can be found here: <https://github.com/BDALab/HandAQUS>
- ▶ Go to the page and click on green “Code” button
- ▶ At the bottom of the drop-down menu click “Download ZIP”
- ▶ Unpack the \*zip file
- ▶ Execute installation by “HandAQUS\_app.msi”
- ▶ HandAQUS will be installed to your computer and icon will be placed to your Desktop



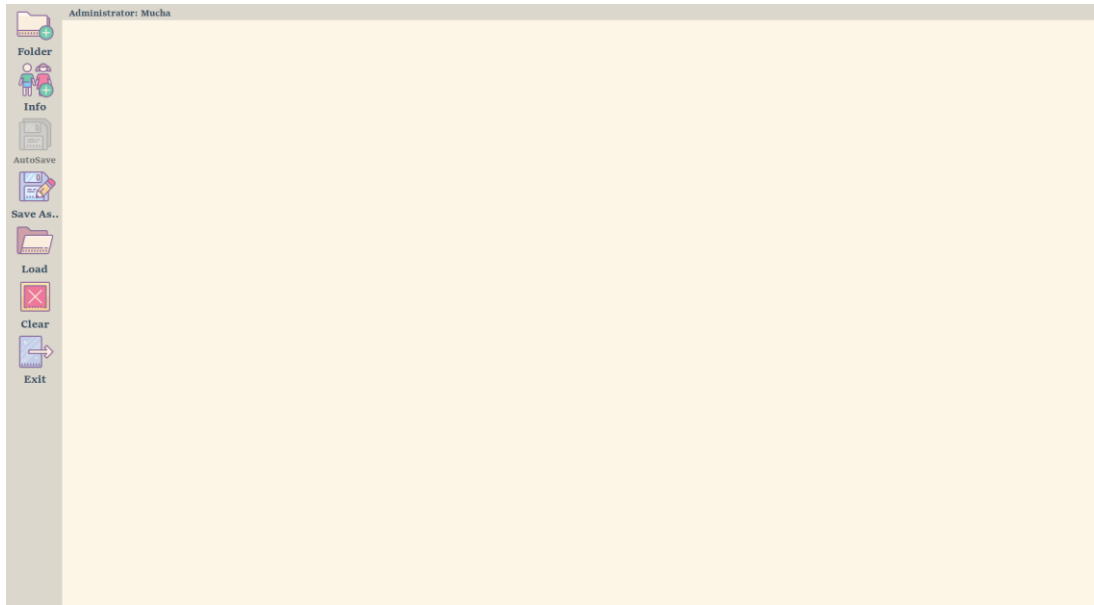
# Software manual (1/4)

## application start, save first file



- ▶ Open HandAQUS application
- ▶ At the start of the application, you will be asked to fill the name of the Administrator

**Note:** Administrator name is mandatory, otherwise the application will not run. Name of administrator will be saved in the file name (AutoSave function).





- ▶ Now, you should see the acquisition screen with the menu at the left side
- ▶ If you have Wacom Inking Pen, overlay surface of the tablet with the paper
- ▶ Write exercise on the tablet surface
- ▶ Acquired handwriting can be stored by clicking on “**Save as ..**” button
- ▶ After the data are saved, scribble panel will be **automatically cleared**



# Software manual (2/4)

## autosave - protocol acquisition mode


- ▶ In case, you are going to record a battery of handwriting tasks (protocol), the **AutoSave** option will help you automatize the process
- ▶ First, you must create a folder where the data will be stored and mark it for the application:
  - ▶ Click on “**Folder**” button and create/select folder 
  - ▶ Name of the folder will be reflected in the generated file name visible in the status bar at the top of the screen `subject2_0001_Mucha_05-08-2021.svc`
  - ▶ File name is encoded as follows:
    - ▶ “FolderName\_TaskNumber\_AdministratorName\_DateOfAcquisition.svc”
- ▶ After the handwriting task is done, click on AutoSave button and task will be saved and “**TaskNumber**” in the file name will be automatically incremented 

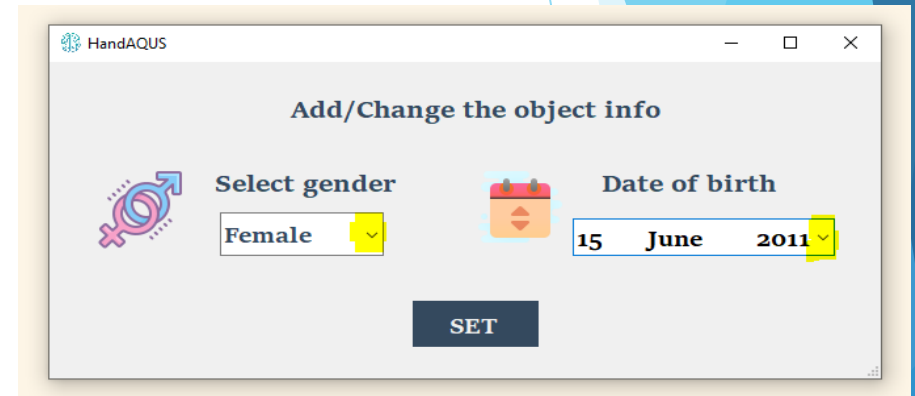
**Note:** Folder name should not content white space and special characters. Name of the folder should be the ID of the assessed subject. Number in the automatically generated file name is incremented after each click on AutoSave button.

**Note:** When you are going to assess another subject, you must change the folder!

# Software manual (3/4)

## autosave - subject additional info (optional)

- ▶ Next, there is possibility to add more demographic info about the subject: **gender** and **date of birth**
  - ▶ Click on “Info” button 
  - ▶ Select the gender and date of birth and confirm
- ▶ File name will be updated by this info as follows:
  - ▶ “FolderName\_DateOfBirth\_Gender\_TaskNumber\_AdministratorName\_DateOfAcquisition.svc”



HandAQUS

Add/Change the object info

Select gender

Female

Date of birth

15 June 2011

SET

subject2\_05-06-2020\_F\_0001\_Mucha\_05-08-2021.svc

**Note:** You must fill both information, otherwise it will be not possible to use this feature.



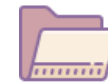
# Software manual (4/4)

## load, clear

- ▶ If you wish to clear current content on scribble panel, click on button “Clear”



- ▶ This function may be useful in case of the task correction/repetition (e.g., subject made a mistake)
- ▶ Finally, the saved handwriting tasks can be loaded back for the visual inspection.
  - ▶ To load the handwriting task, click on “Load” button and select \*.svc file
  - ▶ Loaded task is **not possible to modify**
  - ▶ To active the scribble panel back, click on “Clear” button



# Possible known issues

- ▶ Freezing
  - ▶ restart application and check the minimal hardware requirements (2GB RAM, 2.0GHz CPU)
- ▶ AutoSave button not enabled
  - ▶ Select the folder for autosave mode (slide 7)
- ▶ Subject activated some additional function of the tablet
  - ▶ Keep calm and close the function window
  - ▶ Clear the scribble panel and repeat the interrupted task

# Enjoy!



In case of any problems/questions/comments  
please contact us!



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