

EPP Programming workshop – Flash installation guide

Disclaimer: As there are many programming languages available to researchers (e.g., Presentation, R, Inquisit, E-Prime, Matlab, JavaScript, ActionScript, C++, Python, etc.), it would be insane to try to cover all of them in one workshop. As such, we will focus on only one of them, and use that one to practice basic and advanced programming techniques. For this workshop we will use the **ActionScript** language, as it has a very clear syntax, and has many features that I can use to explain the ins and outs of scientific task design and development.

To use the ActionScript programming language, you will first need to download and install **Adobe Flash Professional**. You can do this in several ways:

1. Employees of all Dutch EPP universities have the option to **buy** a one-year license for Adobe Creative Cloud (which includes Flash Professional) through Surfspot (www.surfspot.nl), for only **€12.50**. Look for Adobe Creative Cloud. Note that this also includes Photoshop and many other programs, so it's really a bargain.
2. Alternatively, you can download a **free** 30-day trial version of Adobe Creative Cloud, if you plan to only use Flash for the workshop.

Some notes before we start

- This Installation Guide will cover the installation process for the **free** version. The Surfspot version should be very similar.
- **Adobe Flash Pro** is available for **Windows** and **Mac**. The Installation Guide below features Windows 7. However, Windows 8 and Mac installation procedures are similar.
- You need to have **administrator privileges** on your laptop to install this.
- You need an **active internet connection** during the entire installation process. As the download is about 2 Gb (very large!) **it is necessary to install Flash before the Workshop** (as the hotel wifi will not support 40 people downloading 2Gb ☺).
- For the sake of me trying to explain a lot to a diverse group of people, I would advise you to stick to Flash Pro CC for this workshop. However, if you feel very confident, or you have previous experience, you could consider another free alternative to Flash Pro, which is called FlashDevelop. The program works quite differently, but the code is the same, and the end result is the same application.

Downloading and installing the free 30-day trial version of Adobe Flash

- First, go to <https://creative.adobe.com/nl/products/download/flash> (or <https://creative.adobe.com/products/download/flash> for non-Dutch speakers). Here you will be opted to either **create a new Adobe account** or **log into an existing account** (don't forget to check the activation email in your inbox / spam folder!).
- After logging in, a download should start automatically: CreativeCloudSet-Up.exe
- When the file has downloaded, double click it to download and install Creative Cloud desktop (this may take a couple of minutes). NB: As **Flash Pro** is part of the **Adobe Creative Cloud package**, this installer is necessary in order to download Flash Pro.
- When the Creative Cloud (CC) download is done, the program will automatically ask you to log in (using the same credentials as before).

- After logging into the Creative Cloud, press [Continue]. You should now see an overview of CC features, and on top (under 'installed apps') should be 'Flash Professional CC and Mobile Device Packaging (2014)', and 'Media Encoder CC (2014)', which should now start downloading, extracting and installing automatically. You need to install both, and this may also take several minutes.
- NB: Here you could of course also consider installing Photoshop etc., but this is **not** necessary for the workshop.
- If, for some reason, installation fails (e.g. an error message that says that some components were not installed correctly), do try to start Flash. It may work, after all. If not, feel free to contact me at w.j.boendermaker@uva.nl for help.

From here on out, things will also be covered extensively **during the workshop**. However, if you feel like having a look around already, here's where to start (optional! 😊):

A first look

- When the installation of both Flash Pro and Media Encoder is done (CC will say the apps are 'Up to date'), you can start Flash by double clicking the **Flash Pro app icon** in the CC window. Alternatively, you can find Flash in the Start menu (Finder on Mac). If you want you can now close the CC window.
- When **Flash Pro** opens, you will be asked to synchronize your settings. You can either enable or disable this feature if you want.
- After that, you can choose to open a file or create a new file. Flash works with 3 main file types:
 - **.as** files: this is the ActionScript3 file, where we will code our programs (main focus of the workshop)
 - **.fla** files: this is a Flash configuration file (like the **.exp** file in Presentation), where you can adjust several settings and create and store assets. Although we will not use this file type very much, it is needed in order to create the actual application file.
 - **.swf** files: when we run a piece of ActionScript code, this file type will be created. This is the actual program that people can run (e.g., on a website or stand-alone).
- In order to start building an application, we need to create 2 new files (under Create new, or from the File > New menu):
 - select ActionScript 3.0 (usually in the upper half of the list) to open a new *Untitled-1.fla* file;
 - select ActionScript File (lower half of the list) to open an empty *Untitled-1.as* file.
- You should now first **save** these files in a clear and easily accessible location. Preferable the Desktop (in Windows). e.g.: C:\Users\Wouter\Desktop\Flash Workshop. Inside this 'Flash Workshop' folder, you can save both files. Note however that:
 - Both files should have the **exact same name** (e.g., Test.fla and Test.as, CASE SENSITIVE!)
 - Ideally, they start with a Capital
 - The names should **NOT include spaces** (more on this during the workshop).
- Once you've created these files, all we need to do is link them, and then you can start building (which we'll cover in the workshop, of course). To link your **Test.fla** to your **Test.as** file, select the **Test.fla** file (or tab) in the Flash editor, and to your right select the **Properties tab** in the **side panel**. In the **Class field**, put the name of your .fla/.as files (without the file extension!), in this case Test. To see whether the link has been made successfully, you can now press the little icon next to it that says **Edit class definition**. NB: Upon clicking the button, Flash should switch to the already opened Test.as tab. If this does not happen, this means that the link is somehow not referring to the correct .as file. (like in the pic below) In that case, try again!

That's it! See you at the workshop! 😊