

## COMPUTER SKILLS FOR DESIGNERS

### Metaphor

**An operating system (OS)** is software that we use to operate the computer. It provides the features that allow programs to run and for us to interact with them. The ones we encounter most often are Mac OS X, Windows, or Linux. But increasingly, mobile devices running Android and iOS are defining our digital lives.

Computer software interfaces are built on metaphors. These metaphors link the digital interface to real life tools and processes.

Regardless of the operating system you are using, most share a few central metaphors such as document, folder, file system, and desktop. Before today's so-called "paperless office," office workers created documents on paper, filed them in folders, and organized the folders in cabinets near their desks. The most important or current project folders might have been sitting on their desktops.

Metaphors in Design Software



If the operating system is like your home office, **design software is like your studio.**

The metaphors of design software are built around the tools of the artist and designer: pencils, brushes, palettes, artboards, and photographic equipment. These tools do what you would expect: pencils make hard-edged lines, brushes make hard and soft-edged areas of color, colors are mixed in the Color panel.

These metaphors are consistent across the graphical interfaces of operating systems and design applications. For example, the panels and the tools look and behave in the same way — despite subtle application differences — in Adobe's Illustrator, Photoshop, and InDesign. Learning the metaphors and similarities among these application interfaces will be one of the fastest routes to mastering the tools.

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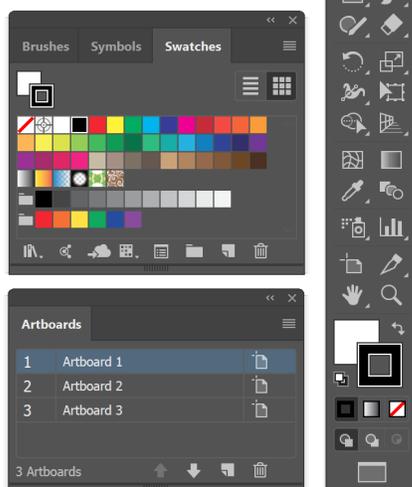
### Finding the Right Tool

The programs in Adobe's Creative Suite have different purposes, but the names of the software hint at the roles they are intended to serve. Knowing which tool to use can make your work more efficient. For example, Photoshop, InDesign, and Illustrator can all create simple vector graphics, but with the tools in Illustrator making simple and complex vector graphics is faster.

Broadly, Photoshop and Illustrator are tools for making different types of image assets, while InDesign brings those image assets together with text for making documents. Again, Illustrator and Photoshop can both make a document, but InDesign makes multi-page layouts and long-form typesetting fast and simple.

I've known professionals whose fear of learning new tools kept them from advancing, and you should avoid their mistake. They would create *everything* in Photoshop rather than learn a tool better suited to the job, and it would cause problems for print production because what you see on the screen is not always what comes out in print. In fact, without software trickery it would *never* come out the same. We'll talk more about print production topics like this later in the semester.

Finding the right tools and techniques takes knowing what is at your disposal. And the most important ones aren't the Creative Suite, they are your web browser and a search engine because self-learning starts with knowing how to find the information available. *A Short Guide to Research (for Designers)* by Meredith James is a small, short hand guide on doing just this. It is an inexpensive book, retailing for \$9.50, and I have placed my personal copy on reserve in the Art and Architecture Library. And finally, the greatest resource available to you is a librarian, an information-finding specialist who will freely work to help you.



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### File Management in a Design Workflow

**File managers** are the programs like  Finder and  Explorer that allow you to browse and manage files. Adobe has its own file manager, Bridge, tailored for media-specific tasks like batch renaming files and writing metadata.

**Extensions** are the last bit of a filename, like .pdf in the example, that tell you the format of the file and tell the computer what program it belongs to.

File formats are important to designers, but Mac OS X and Windows hide them by default. Show them by adjusting your system preferences.

#### Mac

1. Open a new Finder window on your Mac.
2. In the Menu bar, go to Finder > Preferences.
3. Click on the Advanced tab.
4. Select the box that says "Show all filename extensions."

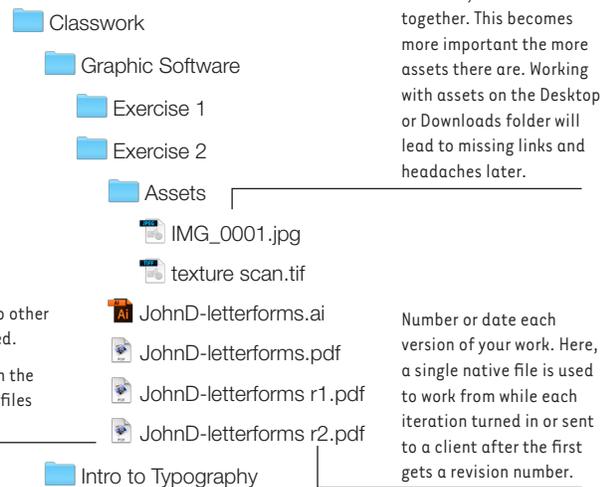
#### Windows

1. Click the Start menu and type "folder options"
2. Select either Folder Options (Vista, 7) or File Explorer Options (Win 8, 10)
3. Click on the View tab.
4. Uncheck the box that says "Hide extensions for known file types."
5. Click the "OK" button.

Be they archives of client files or mountains of photographs and videos, graphic designers inevitably build and maintain catalogs of files, images, and data for use in their work. Software like Adobe Lightroom help manage large catalogs of specific types of files, but you will always need to know how to make intelligible, searchable directories and filenames.

The example below is geared for your student work. As a professional, you might organize by client, then project type, and finally by project name—whatever makes sense for you, what you work on, and who you collaborate with.

This directory structure starts broadly and narrows down. Avoid creating dumping grounds for files where you can't tell what is what, and balance that against nesting folders when just one will do.



Since this file gets sent to other people, a name is included.

Including "letterforms" in the filename will allow these files to be searchable later.

Things like images and text files, are collected together. This becomes more important the more assets there are. Working with assets on the Desktop or Downloads folder will lead to missing links and headaches later.

Number or date each version of your work. Here, a single native file is used to work from while each iteration turned in or sent to a client after the first gets a revision number.

 Spotlight Search

### Searching for Files

If you use good filenames, your computer can find and bring up files for you. On a Mac, use  Spotlight by pressing Cmd+Space or clicking the magnifying glass icon on the menu bar.  Search in Windows by opening the Start menu.

### Cloud Storage and Backups

Turns out, you can lose your flash drive or forget your laptop at home. But if you store your work in a cloud service, this isn't a problem. These services vary in size limits and features, so look for ones that fit your needs—like undelete, file history, syncing between computers, or storage limits.

Making regular backups of, not just your work files but your whole computer, to an external hard drive is important to protecting and securing your digital life. They allow you to recover from computer cataclysms and mundane accidents.

 Time Machine and  File History will make *hourly* backups of your changes when a backup drive is attached. Ask if you need help setting it up.

#### Cloud Services to Store + Sync

UH provides students with a 1 TB OneDrive for Business account. Sign in with your CougarNet ID and password (add @cougarnet.uh.edu to your username) at <https://login.microsoftonline.com>.

If you have an Adobe Creative Cloud subscription, it comes with 20 GBs of cloud storage. Turn it on in the Assets tab of the Creative Cloud app.

Google Drive comes with 15 GBs free, and their 100 GB plan is \$20/year.

Dropbox free accounts are limited to 2 GBs, and paid accounts offer an extended feature set.