

CSAT 2312: INTRODUCTION TO ANIMATION

9.30–10.45am, Tuesday and Thursday | Aug–Dec, 2016 | Room BAB 302, Sul Ross State University

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Office Hours: MW 8.25-9.55am TR 8.25-9.25am, and by appointment

Course Introduction

This class will teach you the basics of animation using many examples, projects, and on-hand instruction. Animations will be created on *OpenToonz* and you will work with Wacom Intuos tablets. We will also briefly look at a selection of historically important animations. The skills you develop over the semester will go towards the creation of a **15-second** animation of your own choosing.

Learning Objectives

During this semester you will:

- Learn key concepts of animation through many exercises and examples
- Understand how to add life and character to your creations
- Gain knowledge of how to use *OpenToonz* to animate digitally

Grading and Evaluation

Grading will be based on the class projects, a final project, attendance and participation in discussions and critiques, and a final animation. All assignments will be evaluated for effort, execution, and presentation.

You will be graded from 0-100% for every project. No extra credit projects will be offered.

Please note that work submitted **no later** than the beginning of class, the day of the deadline, will be graded. **Any work submitted *one minute* past the beginning of class will be awarded a zero. There are no exceptions to this rule.**

Your final class grade will consist of:

- Various animation projects : 60%
- Book Quiz : 5%
- Attendance and participation : 20%
- Final Project : 15%

Materials and Text

- *The Animator's Survival Kit* – choose one version below
 - iPad edition - <https://itunes.apple.com/us/app/the-animators-survival-kit/id627438690?mt=8>
 - Print edition - *The Animator's Survival Kit-Revised Edition* by Richard Williams. ISBN: 086547897X
- 4GB (at least) jump/flash drive

You must have your textbook in class by the date in the calendar because we will have a book quiz that day. I highly recommend the iPad edition of *The Animator's Survival Kit—Expanded edition*. While a little more expensive, it includes many animated examples that will allow you to more easily understand the concepts in the book. The physical copy of the book should be available from the Sul Ross bookstore or can be bought from an online store, such as www.amazon.com.

A jump-drive is essential for saving your work but you are also expected to back up your projects to another location, such as at a free service like www.dropbox.com or www.google.com/drive. *Not submitting a project*

because you lost your jump-drive or some other technical difficulty will not be accepted as an excuse and will earn you a zero for that project.

Software and hardware availability

The BAB labs have Wacom tablets you can use during class, and outside of class (though they must not leave the lab). Any modern graphics tablet should work with your software, however. *OpenToonz* is the free, open-source software we will be using for the semester, which is available on the computers in BAB 302 and BAB 303. You can also download it from here: <https://opentoonz.github.io/e/>

Rules and expectations

Attendance is **compulsory**. If you must miss a class for a school-related activity, the absence must be discussed (and arrangements made regarding coursework) **prior to the absence**. If you must miss a class for an emergency or illness, please contact me **by email or phone as soon as possible**. Six (6) absences result in you being dropped from the course with a grade of “F” as per Sul Ross State University policy. Five (5) unexcused absences will result in a zero for your attendance and participation grade. Arriving to class **on time** is also essential – **arriving late more than two times will be counted as one absence. Lateness is considered 15 minutes after the beginning of class.**

Please note that an absence is 50-minutes, not one class period. Below is a guide to how much each absence impacts your attendance and participation grade.

- | | | | |
|---------------------------------|------|--------------------------------|--------|
| • One (1) unexcused absence: | -20% | • Four (4) unexcused absences: | -80% |
| • Two (2) unexcused absences: | -40% | • Five (5) unexcused absences: | - 100% |
| • Three (3) unexcused absences: | -60% | • Six (6) unexcused absences: | FAIL |

No cell phone usage. No social-networking websites. No instant-messaging. No checking personal emails. Headphones and earbuds are allowable **ONLY** when you are working, but not when the professor or a fellow student is speaking. **Doing any of these, or anything I consider disruptive to the class, will drastically drop your attendance and participation grade. You may be also asked to leave the class and will be marked absent for that day.**

Late work will not be accepted.

Plagiarizing, cheating, or any other dishonest behavior in the classroom will not be tolerated. Rules and regulations regarding plagiarism, dishonesty, and other issues concerning classroom participation can be found in University Rules and Regulations and Student Handbook. This course will abide by these established policies. A student found to be engaging in these activities will be penalized to the full extent of Sul Ross State University policy.

Email

You are expected to check your email account **EVERY** day. This is the account that is registered at Blackboard, and is usually your Sul Ross email account.

ADA Needs

It is Sul Ross State University policy to provide reasonable accommodations to students with disabilities. If a student would like to request such accommodations because of a physical, mental, or learning disability, please contact the ADA Coordinator in Ferguson Hall, room 112 or call (432) 837-8691. Please relate all requests for special accommodations to the instructor by the third class period.

SLOs

3d. Students with a concentration in Digital Art will be able to demonstrate knowledge and familiarity of digital image creation and knowledge of professional practices in digital art.

- a. Demonstrate the ability to produce a cohesive professional thematic capstone project which is well crafted and has a defined technique or personal style.
- b. Demonstrate technical mastery of digital skills as they apply to the selected media.
- c. Ability to produce a professional portfolio that meet current industry standards.
- d. Ability to work in a timely manner.

Please note that this syllabus is subject to change.

COURSE SCHEDULE

WEEK ONE

- Aug 23 (T): Class introduction and syllabus review.
***** ORDER/BUY TEXTBOOK TODAY! *****
- Aug 25 (R):
- **PRESENTATION:** Rapid survey of the history and forms of animation.
 - **PRESENTATION:** The 12 Principles of Animation.
- *** HOMEWORK ***** – Read either **pp35-45** from the textbook or **chapter 3** (*It's all in the timing and the spacing*) from the app.
- Please bring a notebook and pen to next class so you can record how to use *OpenToonz*.

WEEK TWO

- Aug 30 (T):
- Introduction to *OpenToonz*.
 - Using the example of a bouncing ball, we'll explore *Timing* (the action, when the ball hits the ground, where stuff happens), and *Spacing* (how far apart each frame of the ball is – large gap when ball moves fast and small gap when moving slowly).
 - **Project #1: Circle Bounce** – Choose either a rubber ball, bowling ball (with three holes), or balloon (with twist at end) bouncing on its own arc. The animation must last between 2-4 seconds at 24fps (frames per second).
- Sep 1 (R): **Project #2: Seaweed S and C curves** – Animate a piece of seaweed.

WEEK THREE

- Sept 6 (T): ***** BOOK QUIZ. You must have your textbook in class today *****
Continue working on Circle Bounce and Seaweed S/C curves.
- *** HOMEWORK ***** – Read either **pp46-69 and pp84-101** from the textbook or **chapter 4 and chapter 5** (*Advancing backwards to 1940 and More on spacing*) from the app. Do not worry about the section about x-sheets.
- Sept 8 (R):
- **Project #1, Circle bounce, and #2, S and C curves, due at beginning of class.**

CONCEPTS

Flexibility - A way of making a character's movement from *a* to *b* more interesting – travel instead from *a* to *x* to *b*. It adds an interesting diversion to give more life to your animations.

Overlapping action – One part starts first and the other parts follow. We'll look at an example of a figure of a man turning right to left and how overlapping action can make it much more interesting.

Successive breaking of joints to give flexibility – Bending the joint, whether or not it would actually bend in reality.

- **Project #3: Flexibility** - Draw a simple face going from happy to sad (or sad to happy), whilst turning! Draw 10 different breakdowns and animate your favorite. The animation must last between 2-4 seconds at 24fps.

WEEK FOUR

- Sept 13 (T): ▪ Continue working on project #3, Flexibility.
- Sept 15 (R): ▪ **Project #3, Flexibility, due at beginning of class.**

CONCEPTS

Extremes – The main drawings in an animation sequence.

Inbetweens – The drawings between the *extremes*.

Breakdown – The passing position between two *extremes*.

Slowing in/ slowing out or *Easing in/Easing out* – Nothing moves from a standstill to a top speed. Speed has to build up and slow down.

Key – Drawings that show what’s happening in the shot (similar to a comic-book frame).

FORMS OF ANIMATION

Straight ahead animating – “Improvisational” animation.

Pose to Pose – Draw your keys > extremes > passing positions > inbetweens.

Combination of Straight Ahead and Pose to Pose – Draw your keys and extremes, but then use them as guides (Keys > Extremes > Passing Positions). Animate each part as a straight-ahead run e.g. arms and hands. Then another straight run for swinging hair, etc.

- **Project #4: Keys** – Create thumbnails, keys, extremes, and breakdowns for a simple action.

WEEK FIVE

- Sept 20 (T): Continue working on Project #4, Keys.

***** HOMEWORK ***** – Read either **pp256-272** from the textbook or **chapter 9** (*Weight*) from the app.

- Sept 22 (R): ▪ **Project #4, Keys, due at beginning of class.**

CONCEPTS

Weight - Can be shown via anticipation (how am I going to pick up that boulder?) and then by the character slowly lifting the object, the body showing resistance throughout. Resistance too can determine how heavy something is.

Pressure - Can be visualized by how an object distorts, e.g. a finger lightly touching a wall will look mostly straight, whereas the first joint of the finger will bend under great pressure.

Weight - Determines how much pressure we expend to move, stop, or change the direction of an object or creature.

- **Project #5: Weight** - Animate two blobs jumping in the air. One blob is heavy, and the

other extremely light. The animation must last at least 3-4 seconds at 24fps and MUST LOOP, i.e. the final frame should lead onto the very first frame.

WEEK SIX

Sept 27 (T): Continue working on project #5, Weight.

Sept 29 (R): ■ **Project #5, Weight, due at beginning of class.**

■ Brainstorming presentation.

***** HOMEWORK ***** – **Project #6: Brainstorming** – Come up with 10 story ideas. More details in can be found in the Projects document.

***** HOMEWORK ***** – Read either **pp273-284** from the textbook or **chapter 10** (*Anticipation*) from the app.

WEEK SEVEN

Oct 4 (T): ■ **Project #6, Brainstorming, due at beginning of class.**

CONCEPTS

■ *Anticipation* - The preparation for an action. We think of things first, and then do them. Any action can be enhanced if there is anticipation before the action. E.g. we go back before we go forward. Before we go one way, first go the other way.

■ **Project #7 Anticipation** - Create an animation showing anticipation. For example, a punch where the fist is drawn back first and then rapidly propelled forward. Or someone about to throw a ball. The animation must last between 2-5 seconds at 24fps.

Oct 6 (R): ■ Continue working on project #7, Anticipation.

***** HOMEWORK ***** – Read either **pp102-175** from the textbook or **chapter 6** (*Walks*) from the app.

WEEK EIGHT

Oct 11 (T): ■ **Project #7, Anticipation, due at beginning of class.**

PRESENTATION: Storyboards.

■ **Project #8: Storyboards** – Storyboard ONE of your ideas from Project #6. One of these will become the beginning of your final project.

Oct 13 (R): ■ **Project #8, Storyboards, due at beginning of class.**

CONCEPTS

- *Walking* – Besides travelling, this allows you to show character and emotion.
 - Begin with three side-view drawings from which to build a walk. Two contact positions (left foot, right foot), and then the passing position/breakdown. The passing position is where all kinds of personality can be added.
 - Character can be added with a wobble of the head, bend the body, etc.
 - We will examine an angry walk, look at how the heel and clothes move, view how the arm can swing, and show different feelings with walks.
- **Project #8: Walks** - Use the 3-drawing system to create five different styles of walk (a total of 15 drawings). Then fully animate one of these. Remember to keep your figure as simple as possible. The animation must last between 2-4 seconds at 24fps and **MUST LOOP**.

WEEK NINE

- Oct 18 (T): ▪ Continue working on project #9, Walks.
- Oct 20 (R): ▪ Continue working on project #9, Walks.

WEEK TEN

- Oct 25 (T): ▪ **Project #9, Walks, due at beginning of class.**
- **Final Project** – Begin working on your final animation.
- Oct 27 (R): ▪ Continue working on your final project.

WEEK ELEVEN

- Nov 1 (T): ▪ **Student Presentations.**
- Continue working on your final project.
- Nov 3 (R): ▪ Continue working on your final project.

WEEK TWELVE

- Nov 8 (T): ▪ **WORK IN PROGRESS** – Show the current state of your final animation to the class.
- Continue working on your final project.
- Nov 10 (R): ▪ Continue working on your final project.

WEEK THIRTEEN

- Nov 15 (T): ▪ Continue working on your final project.
- Nov 17 (R): ▪ Continue working on your final project.

WEEK FOURTEEN

- Nov 22 (T): ▪ WORK IN PROGRESS – Show the current state of your final animation to the class.
- Continue working on your final project.
- Nov 23-25: --- *Thanksgiving Break* ---

WEEK FIFTEEN

- Nov 29 (T): ▪ Continue working on your final project. **Due 5pm, Saturday 3 December.**

WEEK SIXTEEN

- Dec 5 (M): Exam is at *8.30am, Monday December 5. For the exam we will screen the final project animations.*

ANIMATION PROJECTS

Please note that this document is subject to change

---Project #1: Circle Bounce---

Choose either a rubber ball, bowling ball (with three holes), or balloon (with twist at end) bouncing on its own arc. The animation must a minimum of 3 seconds at 24fps (frames per second).

Grading

Grading breakdown:

- Depending on what object you choose (rubber ball, bowling ball, or balloon), have it react accordingly – 80%
- The animation must last a minimum of 3 seconds at 24fps (frames per second) – 20%
- Turn your animation into a Quicktime movie. In *Animate*, choose File > Export > Movie. Save your animation using the following format: LASTNAME-FIRSTNAME-circles.mov

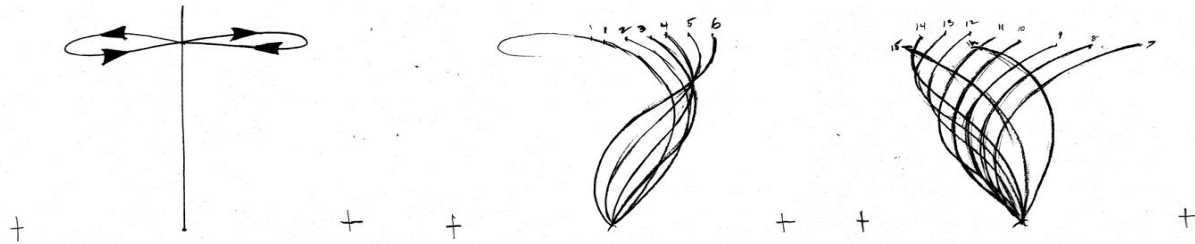
Due Date

Your animation must be emailed to adumitrescu@sulross.edu as a .MOV file no later than the beginning of class, on the date specified on the syllabus. Projects received after this time will receive a zero.

--- Project #2: Seaweed---

Animate a piece of seaweed, ideally using 16 frames. Implement S and C curves when creating your lines.

Here are some guides (source: <http://gossipanimationclass.blogspot.com/2012/11/day-11-welcome-back-to-class.html>).



The image on the left gives you an idea of the path of the tip of the seaweed. Please DO NOT trace these but instead use them as a guide for creating your own.

Once you have the line animating well using S and C curves, return to each frame and add detail to turn it into a piece of seaweed.

Grading

Grading breakdown:

- Animate a strong C and S curve - 70%
- Add the body of the seaweed once the line is moving realistically - 30%
- Turn your animation into a Quicktime movie. In *Animate*, choose File > Export > Movie. Save your animation using the following format: LASTNAME-FIRSTNAME-seaweed.mov

Due Date

Your animation must be emailed to adumitrescu@sulross.edu as a .MOV file no later than the beginning of class, on the date specified on the syllabus. Projects received after this time will receive a zero.

---Project #3: Flexibility---



Source: www.imatorisland.com/animation-secret-getting-there-is-half-the-fun/

Draw a simple face going from happy to sad (or sad to happy) whilst turning. Draw 10 different breakdowns and animate your favorite **two**. The animation must last at least 3 seconds at 24fps.

Grading

Grading breakdown:

- Draw ten different breakdowns showing a face going from happy to sad (or sad to happy). Each should consist of three drawings, resulting in a total of thirty drawings – 50%
- Fully animate your **two** favorite transitions. Put both onto one screen and ensure the animation lasts at least 3 seconds at 24fps – 50%
- Turn your animation into a Quicktime movie. In *Animate*, choose File > Export > Movie. Save your animation using the following format: LASTNAME-FIRSTNAME-**flexibility**.mov

Due Date

Your animation must be emailed to adumitrescu@sulross.edu as a .MOV file no later than the beginning of class, on the date specified on the syllabus. Projects received after this time will receive a zero.

---Project #4: Keys, Extremes, and Breakdowns---

Create thumbnails, keys, extremes, and breakdowns/passing positions for a simple action. For instance, rising up from a chair and closing a door.

- Begin by very quickly sketching out small drawings showing what will happen. Do not change the camera angle. Spend no more than 60-seconds per thumbnail sketch.
- Once you've created your thumbnails, begin drawing the keys, i.e. the storytelling positions.
- Next, begin drawing the extremes, drawings that have to be in the shot, e.g. if illustrating a walk, the contact positions where the feet touch the ground.
- Next, begin drawing the breakdowns/passing positions, things that add personality and come inbetween each extreme, e.g. the head bobbing up and down.
- Do not animate this any further. Instead, you are going to produce a choppier animation that runs perhaps about 4fps. As a result, you will be creating a more complicated animation than what you've so far produced.

Grading

Grading breakdown:

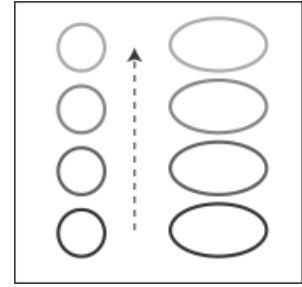
- Provide your quick thumbnails, roughly illustrating the animation, as a series of JPEGs – 50%
- Animate the keys, extremes, and breakdowns/passing positions in Toon Boom Animate - 50%
- Turn your animation into a Quicktime movie. In *Animate*, choose File > Export > Movie. Save your animation using the following format: LASTNAME-FIRSTNAME-**keys**.mov

Due Date

Your animation must be emailed to adumitrescu@sulross.edu as a .MOV file no later than the beginning of class, on the date specified on the syllabus. Projects received after this time will receive a zero.

---Project #5: Weight---

Animate two blobs jumping in the air. One blob is heavy, and the other extremely light. The animation must last between 3-4 seconds at 24fps and MUST LOOP, i.e. the final frame should lead onto the very first frame.



Grading

Grading breakdown:

- Animate two blobs, one heavy, one light – 80%
- Ensure your animation loops SEAMLESSLY - 20%
- Make it last 3-4 seconds at 24fps.
- Turn your animation into a Quicktime movie. In *Animate*, choose File > Export > Movie. Save your animation using the following format: LASTNAME-FIRSTNAME-**blobs**.mov

Due Date

Your animation must be emailed to adumitrescu@sulross.edu as a .MOV file no later than the beginning of class, on the date specified on the syllabus. Projects received after this time will receive a zero.

--- Project #6: Brainstorming---

Come up with **ten** story ideas. Each one must last fifteen seconds. One approach to coming up with ideas is this: 1) define a character, 2) explain an objective, 3) create an impediment, and 4) show a resolution (not necessarily positive). You may also create more experimental/abstract stories.

Grading

Grading breakdown:

- Ensure each story has enough thought and effort – later this semester you will be storyboarding two of them – 100%
- Type up your ten story ideas in Microsoft Word. You must save it as a .DOC or DOCX file. **No other format will be accepted.** File format for this is LASTNAME-FIRSTNAME-**10ideas**.doc

Due Date

Your ideas must be emailed to adumitrescu@sulross.edu as a Word file no later than the beginning of class, on the date specified on the syllabus. Projects received after this time will receive a zero.

---Project #7: Anticipation---

Create an animation showing anticipation. For example, a punch where the fist is drawn back first and then rapidly propelled forward. Or someone going to toss a ball. The animation must last between 2-5 seconds at 24fps.

Grading

Grading breakdown:

- Clearly show some kind of anticipation – 40%
- Ensure it lasts between 2-5 seconds at 24fps – 60%
- Turn your animation into a Quicktime movie. In *Animate*, choose File > Export > Movie. Save your animation using the following format: LASTNAME-FIRSTNAME-**anticipate**.mov

Due Date

Your animation must be emailed to adumitrescu@sulross.edu as a .MOV file no later than the beginning of class, on the date specified on the syllabus. Projects received after this time will receive a zero.

---Project #8: Storyboards ---

Storyboard one of your ten ideas from project #7. One of these will become the beginning of your final project.

- Begin by roughly sketching out the shots you need for your animation. At this stage you're just thinking through the camera positions and conceptualizing what's in your head.
- Next, open up *storyboard_template.psd* in Photoshop (it's located at sulross.blackboard.com). Immediately resave this file as LASTNAME-FIRSTNAME-**first-storyboard01.psd**
- In each frame begin turning your thumbnails into fully-rendered storyboard panels. Add the shot number too, along with any direction notes. Arrows can help illustrate movement. You may print out blank storyboard sheets and illustrate non-digitally but remember that you will have to scan/photograph each sheet when finished.
- Illustrate EVERY important visual scene. It is vital to storyboard as much as possible as this will help you get a sense of the timing of your final animation.
- When you complete the first sheet, save it and begin a new blank sheet using the original file from Blackboard. This time call it LASTNAME-FIRSTNAME-**first-storyboard02.psd**. Repeat until you have storyboarded the entire animation.
- Repeat the entire process and this time use the following format: LASTNAME-FIRSTNAME-**second-storyboard01.psd**

Grading

Grading breakdown:

- Completely cover every single shot you need for your both pieces of animation, along with every piece of action, and any necessary notes – 60%
- Effort and care put into your art (ability to draw is not being judged, rather how clear and well thought out your illustrations are) – 40%
- Send the files to me as a series of JPEGs. The *storyboard_template* is a PSD file so use File > Save as... JPEG.

Due Date

Your storyboards must be emailed to adumitrescu@sulross.edu as a series of JPEG files no later than the beginning of class, on the date specified on the syllabus. Projects received after this time will receive a zero.

---Project #9: Walks---

Use the 3-drawing system to create five different styles of walk (a total of 15 drawings). Then fully animate one of these. Remember to keep your figure as simple as possible. The animation must last between 2-4 seconds at 24fps and MUST LOOP.

Grading

Grading breakdown:

- Begin by creating the five 3-drawing walk possibilities. Email these to me as a JPEG using the following format: LASTNAME-FIRSTNAME-**5walks.jpg** – 40%
- Create a fluid walk animation that looks natural and loops – 40%
- Animate, at the very least, the legs, arms, and head – 20%
- Turn your animation into a Quicktime movie. In *Toon Boom Animate*, choose File > Export > Movie. Save your animation using the following format: LASTNAME-FIRSTNAME-**walk.mov**

Due Date

Your animation must be emailed to adumitrescu@sulross.edu as a .MOV file no later than the beginning of class, on the date specified on the syllabus. Projects received after this time will receive a zero.

---Final Project---

Turn your storyboard into a 15-second animation.

Grading

Grading Breakdown:

- Animate smoothly and consistently, i.e. elements should keep their basic shape from frame to frame – 30%
- Follow your storyboard closely – 20%
- Put a reasonable amount of effort into the project – 40%
- Ensure your animation lasts 20 seconds – 10%
- Sound effects/music are not necessary but will add to the overall project. This can be done in AfterEffects. Do not use copyrighted material.
- Turn your animation into a Quicktime movie. In *Animate*, choose File > Export > Movie. Save your animation using the following format: LASTNAME-FIRSTNAME-**final**.mov

Due Date

Your animation must be emailed to adumitrescu@sulross.edu as a .MOV file no later than the beginning of class, on the date specified on the syllabus. Projects received after this time will receive a zero.

OpenToonz Tutorial

DOWNLOAD LINK

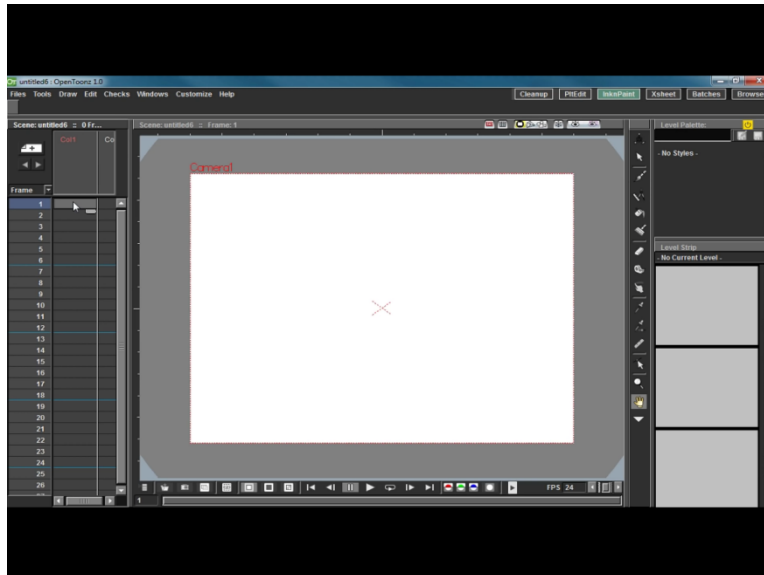
Available for free on Mac and PC: <https://opentoonz.github.io/e/>

Quickstart setup - <https://goo.gl/zb4wrB>

SET UP

Once installed, do the following to make your work environment easier to create in:

- *Windows > Toolbar* – Gives you access to your drawing tools. Drag to the *right* of the work area.
- *Windows > X-sheet* – The timeline of your animation. Drag to the *left* of the work area.
- *Windows > Palette* – Lets you choose *which* colors to draw/fill with
- *Windows > Style Editor* – Lets you select colors to draw/fill with



Suggested palette setup

Now you want to set up your output settings so that resolution etc. is detailed enough. Note that if you do not see *Render* in the menu bar then click on the *PliEdit* button at the top right of the screen (and remember to do this for every time you create a new animation):

- *Render > Output Settings* – Make WIDTH 1920 pixels and then click on the padlock to lock this setting. Now, make HEIGHT 1080 pixels.
- *Render > Output Settings* – Under the File Settings section, next to the Name box, select AVI from the drop-down menu.

BACKGROUND COLOR

This next step is essential – without it, your animations will come out as black screens. Note that you have to do this each time you begin a new animation:

- *Customize > Scene Settings* – Next to the Camera BG Color square are four sliders labeled R G B and M. Please make all of them 255, which should make your background white.

PROJECT SET UP

You now want to set up a New Project. At the top right of the screen is the *Browser* button. Click it, and choose *Files > New Project*. A popup window will appear. I suggest entering the following information:

- Project Name: - [the name of your project, e.g. walk cycle]
- +inputs - **in**
- +drawings - **draw**
- +scenes - **sc**
- +extras - **ex**
- +outputs - **out**
- +palettes - **pal**
- +scripts - **scr**

Click okay to close this window.

ANIMATE!

Now you should try a quick test animation!

- Choose the brush tool in the toolbar. Adjust the size in *Windows > Tool Option Bar*
- In *Customize > Preferences > Drawing* you should change *default level type* to Raster Level so that your lines appear accurately.
- Draw something simple. To move onto the next frame in the X-sheet, simply press the Down Arrow on the keyboard.
- You now will see a blank page. To see a paler version of your previous drawing, Right Click on your mouse and select *Activate Onion Skin*.
- Draw a few more frames and *Customize > Configure Shortcuts > Playback Controls > Play* and press the spacebar. Now when you press the spacebar the animation will play.

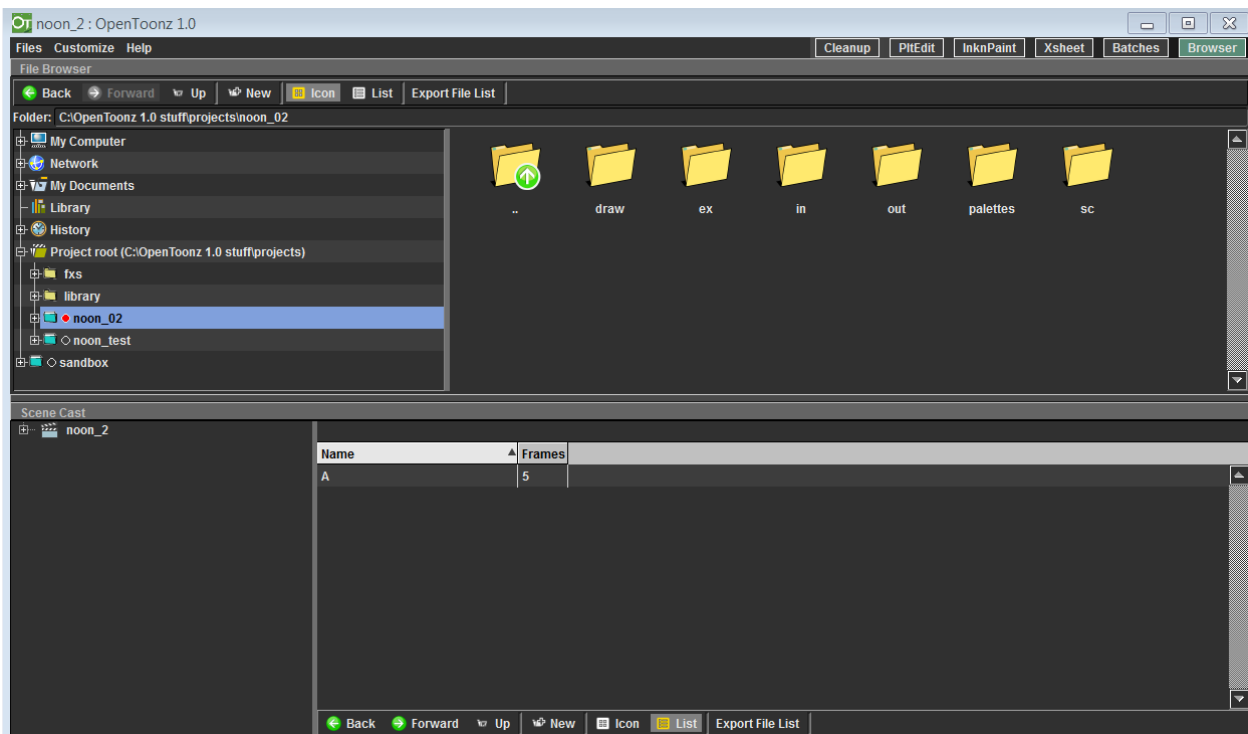
SAVING

Currently, saving is not intuitive in Opentoonz. When you want to save, do the following:

- *Files > Save Levels* – Saves your drawings
- *Files > Save Palette* – Saves the inks you're using (typically, you only need to save each time you add a new color)
- *Files > Save Scene* – Saves everything else

OPENING A SAVED PROJECT

When Opentoonz loads up, click on the Browser button at the top right of the screen. You should see the project you were working on the right and want to load the scene. It should be the icon on the right of the screen (My project is called noon_02 and the scene is located in the SC folder):



RESOURCES

Opentoonz originally was a commercial project and in 2016 was turned into open source software (though a premium version is available to purchase). Currently, the best documentation I've found is on YouTube so if you're having problems with a particular feature of the software, search online.