

# Geog 430, lab #2

## Intro to ERDAS Imagine 2015

(Based roughly off [http://www.uwyo.edu/rs4111/lab01\\_erdas\\_intro\\_f15.pdf](http://www.uwyo.edu/rs4111/lab01_erdas_intro_f15.pdf) )

### Introduction:

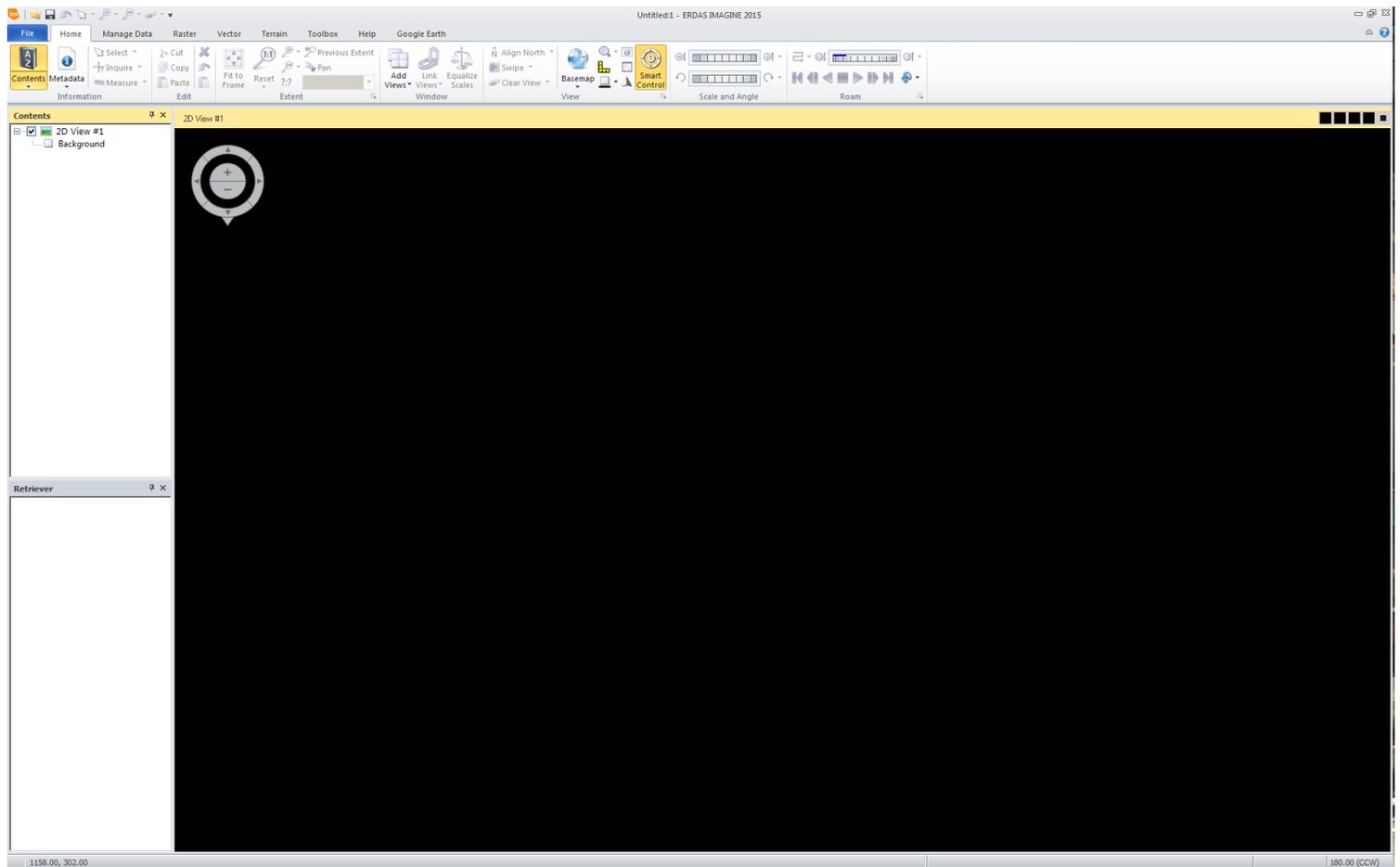
This lab will introduce you to ERDAS Imagine and some local imagery. There are a number of questions scattered throughout this lab. Please type all your answers on the answer sheet and turn it in at the mailboxy thing on my office door.

Erdas Imagine is used to manipulate and analyze remotely sensed data. It is probably the most commonly used program dedicated to this task. It's also pro software, written primarily for pros. There is a definite learning curve. See the "help" section below. Plan for some frustration throughout the quarter.

The data for this lab is on the data drive in the lab – lab 2 subdirectory. Be sure to copy this onto your flash drive before working.

### Start

OK, fire up Erdas Imagine. You'll get something like



## **Help**

There are a number of help options available. The first is mashing the “?” button in the upper right corner. Sadly, by default, this opens in Internet Explorer. You may need to hit the “allow blocked content” button at the bottom.

More info can be found under the “help” tab (middle top of the screen). This info is often more detailed. The field guides explain more of the theory, while the tour guides provide step-by-step walkthroughs. The user guides are tutorials.

Finally, Google is always your friend. Often, more straightforward help can be found from someone posting online. Never forget Google.

## **Setting your preferences**

First note – you may have to do this regularly in the lab, as every person may have different preferences. Nonetheless, goto file – preferences.

First, set your default data directory (under the user interface) – make this your flash drive. Ditto the default output directory. Assuming you have plenty of space on your flash drive (assume you will need a few gigs, just to be safe), this will be where you read/write all of your work.

Next note – there are a bajillion other preferences you can set. For now, leave them alone so as to not mess anyone up.

Final note – during the quarter, you may need to come back in here and redo this.

Close the preferences window.

## **Opening images**

Alright. Time to play with some imagery. First, copy the lab2 subdirectory onto your flash drive.

Goto file-open, then raster layer. Navigate to the tm\_kitco dataset you just put on your drive.

Poof! Landsat data covering most of Kittitas county! Pretty sure this was from around 2000.

## **ANSWER QUESTION 1**

## **Changing the color scheme**

The appearance of an image depends on which bands you choose to draw, and in which color you draw them. For Landsat 4 imagery (the kitco image), you have 3 colors (RGB) and 6 bands (no thermal band here).

For comparison, let’s open a second window. Goto Home, add views, add 2d view. Right click on the new, empty view, and select open raster layer. You should have two kitco views.

Right click on each image and select fit to frame. You can also link or synch the views – but don’t do that yet – head to question 2.

## **ANSWER QUESTION 2**

Now, let's play with band combinations. Keep the two windows open – sometimes it's good to be able to compare different images.

### **ANSWER QUESTION 3**

Some basic terminology

**Raster:** the technical term for an image that is composed of pixels arranged in row/columns. Each x,y grid cell is called a pixel (just like any old digital image or photo).

**Vector:** Map data that is composed of points, lines, and polygons.

A **layer** in ERDAS is either a single raster satellite band or vector dataset

A **file** (ie. an image file) can have more than one layer (like what you're looking at)

Normally, a ERDAS image file (\*.img) will have a number of layers, one for each band of satellite data. **Never assume that the numbers in the file directly correspond to the band number.** You may well have to figure it out for yourself.

To help with all this, hopefully, your file comes with metadata (or data about your data). To check out the metadata for your file, click on home – metadata. Lots of info here. In fact, you will be spending a LOT of time with this tab, so pay attention

### **ANSWER QUESTION 4**