

## Chapter 9 Tech Tips

The data sets used for this chapter are simply .jpg images of areas taken from aerial imagery downloaded for free from The National Map. As simple .jpg images they can be opened with a variety of different image or photo software programs – but whichever is used should have an option to be able to zoom in closely on the image so students can try and make out details in the picture.

If you want to use different (or localized) images in your class, the high-resolution aerial photos are available to download for free from The National Map. Each aerial only covers a small geographic area, so you can preview the ‘footprint’ of the image prior to downloading it to be sure that the features you want to view in the aerial are in the image. The photos used in this chapter’s lab are cropped versions of these.

After downloading, the file is available in JPEG 2000 format and will show the entire area covered by the aerial photo. In order to create a .jpg version of these files and to also properly crop out only the area you want to show for the lab, you’ll need to download two free software programs:

- The free IrfanView program was used for converting the JPEG 2000 files to .jpgs (IrfanView is available for free download here: [www.irfanview.com/](http://www.irfanview.com/)).
- The free GIMP (Graphic Image Manipulation Program) was used for cropping the converted .jpgs (GIMP is available for free download here: [www.gimp.org/downloads/](http://www.gimp.org/downloads/)).

The following steps outline the process used in this chapter to create the chapter’s data sets:

1. Load the JPEG 2000 image into IrfanView.
2. From IrfanView’s File pull-down menu choose Save As to save a version of the image as a high-resolution regular .jpg file.
3. Open the converted .jpg file in GIMP.
4. By using GIMP’s selection tools you can draw a bounding box around the area you want to crop.
5. From GIMP’s Image pull-down menu choose Crop to Selection and only the area you chose will remain.

6. Then from GIMP's File pull-down menu choose Export and choose to export the cropped version on the screen as a .jpg.