Introduction to Photoshop

Selections

Conventions

Keyboard command sequences will be within <[and]>.
Keyboard command sequences will mix both Mac and PC,
for example <[Command/Control+j]> means:
On a Mac do <[Command+j]>
On a PC do <[Control+j]>

***** SLIDE 3 Geometric (Marquee) Selection Tools

There are four options to the Geometric or Marquee selection
tools: Rectangular, Oval, Single Row, and Single Column.

The Rectangular Marquee tool creates free-form rectangles.
The Oval Marquee tool creates free-form ovals. The Single
Row and Single Column tools create either a row or column,
respectively, that is only 1 pixel thick and is the width or
height of the open image. The only two uses I've found for
the Single Row / Column is if you want to create a very thin
1 pixel line, or you want to extract a very thin slice that
can be repeated for a website background using cascading
style sheet (CSS) commands to repeat a background image in
either X or Y dimensions.

***** SLIDE 4 Freehand (Lasso) Selection Tools

There are three options to the Freehand (Lasso) selection
tools: Lasso, Polygonal Lasso, and Magnetic Lasso.

The Lasso tool creates a selection as you drag the mouse.
When you get close to where you started the selection, the
cursor forms an empty circle indicating that you can close
the selection with a mouse click. If you take your time with
this tool you can make some fairly close selections, but it
is better suited to make rough, large selections that you
can later refine with other tools.

The Polygonal Lasso tool creates straight lines between
mouse clicks. This tool is best used to make a selection
around a subject that has straight edges, such as a
building, a book, etc. - anything that is angular. When you
want to make a shift in the line, such as at a corner, you
click the mouse to drop an anchor point and then resume

making another straight line. When you get back near to the point where you started, the cursor will have an empty circle indicating that you can close the selection with a mouse click.

The Magnetic Lasso tool works along edges that have curves, for example if you're extracting a person from a photo. Begin with the tip of the tool along the edge of the subject you want to select and start dragging; the tool is "sticky" in that it will attempt to follow along the edge. You can let the tool automatically create anchor points, or with a mouse click you can create your own anchor points - this might be necessary from time to time. The magnetic lasso tool works on contrast - so long as the edge of what you're selecting has a high enough contrast against the background you're selecting from, the tool works very well. If there is not enough contrast, for example a bare arm against a biege white wall, the magnetic lasso tool might have problems making the selection. When you get back to where you started the selection the cursor will display an open circle indicating that you can close the selection with a mouse click.

***** SLIDE 5 Edge and Color Selection Tools

Both the Edge (Quick Select) Selection tool and the Color (Magic Wand) Selection tool work similarly to grab large areas of colors in the same range.

The Quick Select tool works as a brush where you "paint" across the area that you want to select. It is rather intuitive and fairly easy to use to capture areas that have a similar color range, for example blue sky, water, red and orange canyon walls, etc. The quick select tool uses a mixture of color and contrast to make its selection. As long as you have both then this tool is very useful, however if you get into the situation such as the bare arm against the beige wall, where the colors are similar and the contrast is very low, this tool will have a problem making the selection.

The Magic Wand tool selects a range of colors based upon where you click on the image and what tolerance you give the tool (0-255). If the tolerance is set to 0, then it will only select pixels across the entire image that have the same identical pixel color information. As the tolerance is increased, the range of pixel color information is also increased to capture more pixels that have a similar - but

not identical - color value. The magic wand tool is best used when you have large areas of nearly identical color that you want to select, an example again would be a blue sky that has very subtile shading.

***** SLIDE 6 Select By Color Range

Another varient of the magic wand tool can be found under the Select menu item Color Range... This brings up a panel with three eyedroppers (select, add to selection, subtract from selection) and a fuzziness slider to expand or contract the color range.

This tool is best used, like the magic wand tool, when there is an subject that has similar colors but the edges may be a little soft (think hair or fur). Use the left eyedropper to click on a color in the image; it will appear as black on the preview in the panel. If you increase the fuzziness, this is similar to both increasing the tolerance, or color range, as well as adding in translucency to the selection. If you use the eyedropper with the "+" you will add to the selection, the eyedropper with the "-" will subtract from the selection. If you have an object where the colors have a similar range, but the edges are soft, this is a good tool to use.

***** SLIDE 7 Modifying Selections

Once you have made a selection you have the ability to modify it, such as to expand the selection, contract the selection, or feather the selection. These options are found under the Select menu item option Modify; putting the mouse over the Modify option will pop-up a fly-out with the set of options available. Some of the options are:

- Expand: clicking expand will bring up a dialog box asking you by how many pixels to expand the selection - the selection is expanded equally by n many pixels.
- Contract: opposite of Expand; however you can not contract the selection to the point where there is no selection - if I have a selection that is 10 pixels across, the largest value I can put in is to contract by 4 pixels.
- Feather: feathering puts in variable translucency; feathering starts at the "marching ants" that defines the outer boundary of the selection inwards by n pixels. If I have a 10 pixel feathering, then the pixels next to the boundary are 100% transparent, the next pixels in 90%, then

80%, etc. Feathering is used to seamlessly blend the selection into the background and virtually all selections will need to be feathered at least 1 pixel.

Other things you can do under the Select menu item:

- All: doing a <[Command/Control+a]> will select everything on the entire layer; this is most often done when you want to copy the contents of a layer from one file into a different file.

- Deselect: if you have a selection that has not yet been executed you can deselect it by doing a <[Command/Control+d]> - this will get rid of the selection.

- Inverse: sometimes you want to get rid of everything *but* what you have selected, this is where the inverse command comes in, it inverses or inverts a selection to select everything *but* what you make the original section around. For example, I have a beachball that I want to extract and the background is sand, water, and sky. One way of doing this is to use the Oval Marquee tool and draw a selection around the beachball, then invert the select to get everything else (beach, water, sky) to remove. The keyboard sequence is <[Shift+Command/Control+i]>.

- Select and Mask: this opens up a panel where you can refine a selection and work on edges that have structure and detail, such as hair or fur.

- Edit in Quick Mask Mode: reveals the selection mask so you can edit it by painting with the brush; some people find this more intuitive that using some of the other tools to refine the selection.

- Load / Save Selection: if you are going to be using a selection over and over, rather than to make it multiple times, just make it once and save it. Then, when you need to reuse it, just load the previously saved selection.

***** SLIDE 8 Working With Selections

The Selection Manta: Select it to affect it.

What this means is simple: whatever is within the boundary of a selection can be affected, whatever is outside is not affected. I can have a selection and, if I use the paint

brush to paint, unless or until I cross the boundary the paint brush will not do anything in the layer - as soon as I cross the boundary, the paint brush will paint within the confines of the boundary. This is very handy when, for example, you might only want to make an adjustment on a portion of a layer; make a selection around the portion you want to change, then make the alteration, when done simply deselect the selection.

Moving and Repositioning Selections

If you have a selection but it isn't in the area where you want it, you can easily move a completed selection or reposition a selection in the process of being made.

- Moving: if you have made a selection but you need to move it, select the move tool <[v]>, then click on the selection and drag it to where it needs to go. You can use the <[arrow]> keys to move the selection 1 pixel at a time, or <[Shift+arrow]> to move 10 pixels at a time.

Repositioning: you have a selection in progress and want to reposition it before continuing on. Start the selection and DO NOT release the mouse button. While continuing to hold down the mouse button, press the <[Space]> bar and reposition the selection. Release the <[Space]> bar to continue making the selection.

***** SLIDE 9 Working with Selections

Duplicating & Moving

This is a destructive edit in that it will pick up the content within the selection and allow you to move it to somewhere else on the currently active layer and place it. To duplicate and move:

- Select the move tool <[v]> and press <[Option/Alt]> while positioning the move tool cursor within the selection; the move tool cursor should become a double arrow.

- While continuing to hold down the <[Option/Alt]> key, drag the duplicated selection to where you want on the layer

Constraining a Marquee Selection

This only works on the Rectangular and Oval Marquee

Selections. Start to make the selection by clicking the mouse button and dragging. Press and hold the <[Shift]> key and continue to drag; the selection will now become either a square or circle depending on which of the Marquee tools you used.

***** SLIDE 10 Working with Selections

De-selecting

You have a selection and you want to de-select it. There are several ways to do this:

- From the Select menu item click on Deselect

- Do the keyboard sequence of <[Command/Control+d]>

- Click outside the selection with any of the selection tools

Drawing from the center of a Marquee Selection

This only works on the Rectangular and Oval Marquee Selections. Put your selection pointer in the approximate center of the selection (example: you want to select a beach ball to change its color) and begin dragging. Without releasing the mouse button, press and hold the <[Option/Alt]> key and continue dragging - you will now draw from the center point. This action can be combined with the <[Shift]> key to draw perfect circles or squares from the center point.

***** SLIDE 11 Working with Selections

Adding to / Subtracting from a Selection

There are several ways to make an adjustment to a selection: you can add to it, subtract from it, or overlay a second selection and only have where the two intersect become the new selection. All these options are available from the Option bar for the selection tools. You can also use the keyboard to add, subtract, and intersect:

<[Shift]> adds to an existing selection; you have to make sure that some part of the new selection intersects with the previous selection

<[Option/Alt]> subtracts from an existing selection; you

have to make sure that some part of the new selection intersects with the previous selection

<[Shift+Option/Alt]> intersects with an existing selection; you have to make sure that some part of the new selection intersects with the previous selection

The option bar allows you to make adjustments to the selection:

- Feather: this makes a transluscent zone from the marching ant border inwards into the selection; this has to be set before you make any selection. If you make a selection and forget to feather it, before you execute the selection, go to the Select menu item, Modify then Feather, enter the pixel value in the dialog box.

- Anti-alias: this creates a blur to slightly soften edges without a loss of detail within the selection (feathering, if deep enough, will cause a loss of detail); like feathering, this needs to be selected before making the selection. Anti-aliasing can not be added after the fact.

- Style (Normal / Fixed Ratio / Fixed Size): the latter two are used predominantly with the Rectangular Marquee tool to create a selection of a set size (example, 4 x 6 in) or ratio (3:4). In the Fixed Ratio, when you drag the selection it will maintain the given ratio value. In Fixed Size, a selection will appear that is set to the dimensions given.

- Select and Mask: after a selection is made, and before it is executed, you can refine the edges by selecting this option

***** SLIDE 12 Working with Selections

You can refine the edges of a selection by bringing up the Select and Mask panel. You can get to this panel one of several ways:

- Via the Select and Mask button on the Option Bar

- From the Select menu item Select and Mask

- From the keyboard <[Option/Alt+Command/Control+r]>

Note you have to have an active selection that has not been executed in order to refine the edges.

Once you have opened up the Select and Mask you are presented with a series of sliders and options. The easiest way to use this tool is to do the following:

- Click the "Smart Radius" checkbox under the Adjust Edge Radius slider
- Move the Adjust Edge Radius slider until the edges look good
- Send the output of the result to your selection; the selection edges will be updated

Please review the Select and Mask Photoshop Cafe video and tutorial for more direction on how to use this option to the selection tool process.

***** SLIDE 13 Working with Selections

Quick Mask Editing

Some people find that making adjustments to a selection by painting in the Quick Mask to be more effective. You may find this method easier to use and more intuitive.

To edit in Quick Mask mode:

- There needs to be an active, non-executed, selection

- From the Select menu item go to Edit in Quick Mask Mode
-- You can also jump to Quick Mask mode by selecting the circle in rectangle tool option in the tool bar

- Once in Quick Mask you will see that the area not selected will be overlaid in pink, this is a callback to the old press days when areas to be protected from editing were covered with a red piece of plastic called rubylith.
-- If you are working on an image that is predominantly red / pink and wish to change the color, double-click on the Quick Mask icon in the toolbar and a dialog box will appear that will allow you to change the color of the rubylith and the amount of transparency.

- To make changes to the selection you use the paint brush and paint in black, white, and shades of grey. Black removes from the selection, white adds to the selection, and grey will cause transparency depending on how close the grey is to black (opaque) or white (transparent) - this is a way to

get subtile shading and gradation in your selection. For example, along the edge of the selection you may paint with a soft brush at 50% grey to allow for some blending in with the background.

The Masking Mantra, which we will visit again when we go over Layer Masks, is that Black Conceals, White Reveals.

***** OTHER THINGS YOU CAN DO WITH SELECTIONS

1. Create non-vector shapes. You can create a square, circle, oval, or rectangle and fill it with a color or gradient to make non-vector shapes. You can then use selections to cut out or add to these simple shapes to create more complex shapes.

2. Make lines. Use the Single Row / Column Marquee tools and fill with a color or gradient to make slim horizontal or vertical lines.

3. Create borders. With an active selection, go to the Edit menu item and select Stroke. In the dialog box that pops up fill in the pixel width, color, and location. Note if you want to stroke a box where the corners are perfectly 90 degrees, makes sure that you select Inside for the stroke and that there is no feathering. If you want rounded 90 degree corners with no feathering, select Outside. Feathering will cause the stroke to be fuzzy. This is a quick way to make a psuedo-neon sign in Photoshop.

4. Make a shadow. Make a selection around an object on a new layer and fill with black. Apply a Gaussian Blur from the Filter menu item to make the edges fuzzy. Use the transform tools under the Edit menu item to angle the shadow away from the light source. Make the shadow transparent by adjusting the layer opacity or fill to between 10% - 50%.