

LESSON 1: IMAGE MANIPULATION

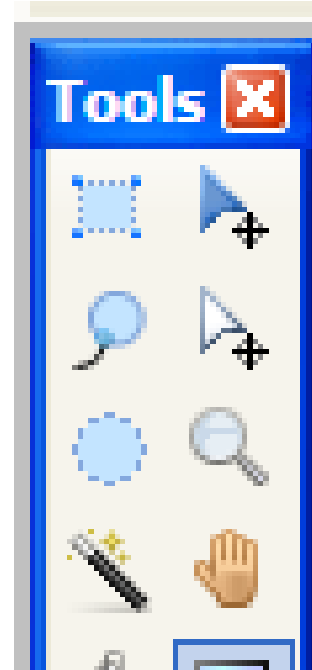
Unit 4

Working with Selections

- When creating and working with images one key tool is to be able to select a part of the picture
- Learning how to select areas of an image is important
- You must first select what you want to affect
- Once you've made the selection, only the area within the selection can be edited
- Areas outside the selection are protected from change

Working with Selections

- In Paint.Net you can make selections based on size, shape, and colour
- There are 4 basic tools
 - ▣ Rectangle Select
 - ▣ Lasso Select
 - ▣ Ellipse Select
 - ▣ Magic Wand



Working with Selections

- Geometric selections
 - ▣ You use the rectangle or ellipse tool to select squares or ovals
- Freehand selections
 - ▣ The lasso tool allows you to make a freehand selection by dragging the tool around the edges of what you want selected
- Colour-based selections
 - ▣ The magic wand selects part of an image based on the similarity of colour of adjacent pixels.
 - ▣ This tool is useful for selecting odd shaped areas without having to trace a complex outline using the lasso tool.

Working with Selections

- Exercise: Selecting and Deselecting an area of an image
 1. Open 04Start.jpg located in Lessons/Lesson04
 2. Using the Rectangle selection tool select the book by dragging diagonally from the upper left corner to the lower right corner of the book to create a rectangle selection.
 3. Select the move selection arrow and drag the book to a different location. Notice what happens.
 4. Choose Edit → Deselect. You can also unselect an item by right click, hitting ESC, or clicking another area of the window

Working with Selections

- Exercise: Repositioning a selection area
 1. Using the ellipse selection tool select the black oval on the right side of the image. It does not need to be a perfect selection as we will fine tune it next.
 2. Select the Move Selection arrow, notice the bounding box controls. Use these controls to make the selection fit perfectly over the black oval

Working with Selections

- Exercise: Selecting perfect circles/squares and moving the pixels of an image and duplicating them
 1. Select the ellipse selection tool
 2. Scroll to the globe in the bottom left area of the image. Use the zoom function to make it larger.
 3. Click on an edge of the globe and when making the selection press the shift key. The shift key constrains the ellipse and rectangle selection tools to be circles or squares.
 4. Unzoom the globe. Notice that the selection stays
 5. Select the Move Selected Pixels arrow
 6. Click on the selection and drag the globe above the book image
 7. Deselect the globe and reselect it.
 8. Press the CTRL key and drag the globe, notice you now have made a duplicate of the selection. You may only make 1 copy and only after selecting an object. If you move an object you will no longer be able to duplicate it unless you copy and paste it.
 9. Use the controls on the bounding box to resize the globe
 10. NOTE: Using the shift key will lock the aspect ratio
 11. You may also use the arrow keys to move a selection

Working with Selections

- Exercise: The magic wand tool
 1. Select the magic wand tool
 2. In the tolerance bar slide the value to 35
 3. Using the magic wand tool, click what looks like the surface of the large number “5” image. Most of it will be selected.
 4. To select the remaining area of the number “5”, hold down the CTRL key, and click on an area of the “5” not selected yet. Continue selecting unselected areas until the entire “5” is selected.
 5. You may use the CTRL key and other selection tools to add to a selection

Working with Selections

□ Selection Mode

- ▣ There are a number of different selection modes you can use as you make selections
 - Replace (default mode)
 - Add (adds to a selection CTRL key)
 - Subtract (subtracts from a selection ALT key)
 - Intersect (only common areas of 2 selections)
 - Invert (only non-common areas of 2 selections)

□ Inverting a selection

- ▣ There are times when it is useful to select an item and then select everything but it. This can be done by selecting Invert Selection from the Edit menu

Working with Selections

- The lasso tool allows you to make freehand selections.
- This is particularly useful when you have an object that does not contain enough similarity in colour to use the magic wand

Working with Selections

- Exercise: Freehand selection and Rotation
 1. Zoom in on the fountain pen on the bottom of the page
 2. Select the lasso tool and begin to select the pen by drawing along its edges
 3. Use the CTRL key to add more to your selection and the ALT key to subtract from your selection if you make a mistake
 4. Once the selection is complete move the pen over the bottom left corner of the book
 5. Rotate the pen in a 45 degree angle by using the right mouse button

Working with Selections

- Exercise: Combining selection tools
 1. Select the rectangle selection tool and select the water lily. Be sure to include a margin of the white background all the way around the flower.
 2. Using the magic wand tool, use the ALT key to unselect the white area around the flower. You will need to determine what the Tolerance needs to be set at so as not to select any of the flower. NOTE: A minus sign appears when ALT is pressed. Just as a + appears when CTRL is pushed.
 3. Drag the flower to the lower right side of the book.

Working with Selections

□ FINAL EXERCISE

- Create the following collage from the source image we have been working from and submit it in the hand-in folder. Name the file *NameU4A1*. 10 Marks.

