


MASTERING SMART OBJECTS

Digital Imaging Study Group
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Why Smart Objects?

 A SMART OBJECT IS A CONTAINER THAT PROTECTS THE PIXELS IN AN IMAGE SO YOU CAN "EDIT YOUR EDITS." THE PIXELS ARE STILL THERE, YOU OPEN AN EMBEDDED SUBFILE TO GET TO THEM. MEANWHILE, YOU HAVE ACCESS TO THESE WHOLE-IMAGE MANIPULATIONS:

No-Penalty Transformations

SCALING OR ROTATING MAKES PHOTOSHOP REWRITE PIXELS. THAT STILL HAPPENS WITH SMART OBJECTS, BUT JUST ONCE. SO TRANSFORM ALL YOU WANT. PLUS: CROPPING DOES NO HARM.

Edit Source Data

BY IMPORTING CAMERA RAW AND ILLUSTRATOR FILES AS SMART OBJECTS, YOU MAINTAIN A DIRECT LINK TO THE ORIGINAL SOURCE INFORMATION AND PROGRAM FEATURES.

Create True Clones (i.e., "Instances")

EVERY SMART OBJECT LAYER LINKS TO AN EMBEDDED IMAGE. COPYING A SMART OBJECT CREATES A NEW "CLONE" OF THE SAME IMAGE. MODIFY THE IMAGE AND ALL CLONES UPDATE IN KIND.

Editable "Smart" Filters

THE 100+ COMMANDS UNDER THE FILTER MENU REWRITE PIXELS. THAT STILL HAPPENS WITH SMART OBJECTS, BUT ONLY ONCE—JUST LIKE TRANSFORMATIONS! THE DIFFERENCE WITH SMART FILTERS: NOT ONLY CAN YOU EDIT THEM, YOU CAN APPLY BLEND MODES AND MASK THE EFFECTS.

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Summary of Features

- A Smart Object (SO) is a container from which a photo as a smart object can be resized or transformed without harming one pixel. Smart Objects enable nondestructive scaling, rotating, and warping. NB up sampling creates pixels so SO's offer no advantage
- Smart Objects can be built from Adobe Camera Raw
- You can create clones from a SO which are updated from the original SO
- You may nest SO's many levels deep
- You can perform non-destructive editable "smart" filtering on the SO's
- SO's permit the design of highly accurate filter masks

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Smart Object Basics

- Watch the application of SO basics to the smart phone example (L1)
 - Operate on design: change color and size, then revert and observe degradation
 - Operate on text: applying a filter forces rasterization and size degradation. Can't edit
 - As a SO can make smaller and then larger with no destruction. To change color can't use Fill. Instead double click on the layer of interest and then add a hue/saturation adjustment layer and change hue. Then close and save this layer
 - Make the text layer as a SO, add a filter, edit text and Close and save. Can come back to filter and text to edit
- Recommendation: Stay in 8 bit per channel when dealing with SO's

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Creating Smart Objects

- Ways to create SO's will be covered (L2)
 - Right click on layer and select Convert to Smart Object (CTSO)
 - Layer > Smart Objects > CTSO
 - Filter > Convert for Smart Filters
 - Click and Drag image from Mini Bridge onto another image and the dragged image becomes a SO, properly centered. Or Place in Photoshop from Bridge or Mini Bridge
 - File > Open as SO brings in another document as a single layer as a smart object. This is linked to the original document. IMPORTANT!!!

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Smart Filters

- Now to probe the use of Smart Filters (L3)
 - Apply a filter to a SO. Note the components in the Layers pallet: the filter which can be hidden, a layer mask associated with the smart filter (on/off with shift click on mask), and a filter blending options panel
 - You can return to the filter at any time and continue editing
 - You can add multiple smart filters to a smart object (only one mask however). Shift-click the filter mask to toggle off/on
 - Smart filters applied to type provide extensive benefits. Type editing review. Duplicating SO example – editing duplicated, filters need to be copied ???
- To constrain the effects of the Smart Filter to a selected area of a SO layer, make a selection first
- Viveza operates as a smart filter if you wish it to

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Smart Object Limitations

- We will explore limitations and workarounds (L4)
 - Pixel editing tools can't be used on SO's. One way is to open the SO and edit it and recreate the image as a SO (SO edit)
 - Another way (preferred) is to add a new layer and make sure Sample all Layers is turned on in the tool option bar and select Ignore Adjustment Layers
 - Timing of use of preferred way is important. Pixel editing best done at the end of the editing. Watch placement of adjustment layers
 - Some tools will not permit this preferred way. Then go to the SO edit way

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Camera Raw Smart Objects

- The implications of SO's and their use with ACR will be examined (L5)
 - Set ACR to Open in Photoshop as Smart Objects
 - When want to go back to edit the SO in Photoshop, double click on the SO icon in Layer pallet and you are sent back to ACR
 - Changes in ACR are reflected in the open Photoshop image and any smart filters are kept
 - Remember to save your cloning, healing, etc. until after you are finished with ACR changes

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Duplicating Smart Objects

- We are going to consider the implications of creating multiple smart objects (L6)
 - First we will create a smart object and transform it and add a layer style. Then we will duplicate the layer (Cmd.J). Now changes to one layer via ACR will be reflected in the duplicate clone
 - If want to edit the two layers differently, create the duplicate layer by using "New Smart Object via Copy" found in two places. Now ACR changes will only affect the single layer
 - A demonstration of "increasing the dynamic range" using the original and copied layers and the Blend If blending option is instructive. Darker image on top. Split top left slider. Then mask as appropriate

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Shadows and Highlights

- Shadows and Highlights panel can be found in Image > Adjustments. It can not be created as part of an adjustment layer and so it is "destructive" when used (L7)
 - To apply Shadows/Highlights as a totally editable, non-destructive Smart Filter, even though it is not a filter, there are two prep steps:
 - Convert to 16-Bits/Channel (if starting with RAW, make sure to utilize 16-bits), and
 - Under Filter menu choose Convert for Smart Filters
 - Open Shadows/Highlights and make adjustments and OK. Now to use filter mask and reopen S/H "filter" to complete. Open the Edit Blending Options panel to adjust opacity and choose a different blending option
- The Variations panel can be handled in the same way (8-bit only)

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Summary

- Should you use Smart Objects and Smart Filters? Should you use Shadows/Highlights in the non-destructive mode?
- Yes!
- Smart Objects and Smart Filters have some limitations
 - Pixel editing tools can not be used
 - Not all filters can be used as Smart Filters
- Techniques can be used to overcome limitations as discussed above

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