Batch Processing

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Introduction

Batch processing is the sequential application of a set of operations to a list of files. Some common examples of batch processing might be to convert a group of files for posting on the web or to print a series of images.

Creating and Running a Batch Process

A batch operation can be as simple as converting a list of images to JPEG files for the web or printing them. Or, it can involve performing a complicated series of operations on a series of images and then saving them in another folder. The **File Open** transformation works in conjunction with other batch transformations (all of which are found in the **Transformation** menu under **File**). These transformations currently include:

- Export – resizes and saves image files to a folder

- Print – prints image files

- Slide Show – displays images full screen in a slide show

These transformations simply pass their input image through to their output image. But, if a batch process is running, they also export, print or display their input image as a side-effect.

Selecting the Files

To process a series of images, you need to create an image tree that starts with a File Open transformation and includes one or more batch transformations. Optionally, you can include other transformations in between if you want to do additional processing on the images such as cropping, adding text or sharpening. The File Open transformation creates a new top-level image. After creating this new image, you can create additional transformations below it, typically ending with one or more Export, Print or Slide Show transformations.
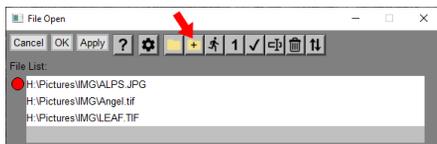
Once the image tree is set up, re-open the File Open transformation by double-clicking on its thumbnail image, click the ➕ button, and choose the rest of the images you want to process.

Or, you can streamline the process by using the File Open Multiple command instead of File Open. This lets you select all the images at once and opens just the first one. The rest are added to the file list.

Starting the Batch Process

To initiate batch processing on the selected files, click the 🏃 button. One by one, each selected image is opened, and the image tree is recalculated. Since a batch process is active, this causes any Export, Print or Slide Show transformations to export, print or display their input images.

A Batch Status dialog box is displayed during batch processing. This dialog box displays the pathname of the file currently being processed, the batch operation being performed, and a thumbnail of the image currently being processed. If you don't want the status display, you can turn it off via the File Open Settings Menu.

Clicking the Terminate Batch Process button causes the current batch process to terminate at the next transformation.

Breakpoints

You may need to manually adjust some settings during a batch workflow -- for example to adjust a cropping rectangle or do some cloning or speck removal. To accomplish this, set breakpoints on each transformation you want to be able to adjust and the batch workflow will pause at each breakpoint and display the transformation dialog box so you can modify its settings. Then click OK to resume the batch workflow or Cancel to terminate the batch process. In batch mode, there is no Apply button, and the image browser and main tool bars are disabled.

You can set a breakpoint on an image either by right-clicking its thumbnail in the Image Browser and selecting Toggle Breakpoint from the popup menu, or via the Edit/Toggle Breakpoint command from the main menu. If a breakpoint is set, the image thumbnail in the Image Browser will have a red outline. To delete all breakpoints, use the Edit/ Delete All Breakpoints command.

Batch Workflow Example

Here is an example of a batch workflow that opens three files, pauses with a breakpoint to let you crop each one manually, and then saves the resulting image as a new file:
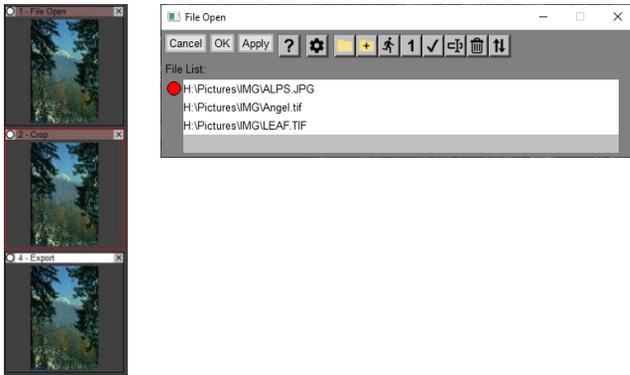
Note that all three files in the file list are shown as selected, but you can deselect any files you want to skip. To start the batch process, click the 🏃 button in the File Open dialog box. This feeds each file in the list, one at a time, to the Crop transformation below it. Because a breakpoint is set on Crop (indicated by the red outline), processing will pause to let you specify the cropping rectangle manually. When you click OK, the cropped image is then passed to the Export transformation which writes it out as a file. If you click Cancel instead, the batch workflow is terminated, and no more files are processed.

Differences between Batch Mode and Normal Mode

While Picture Window is running in Batch mode, it works a little differently.

The Image Browser, main tool bars and main menu are all disabled to prevent disturbing the batch process by changing the image tree while it is running.

Whenever a breakpoint is reached for a transformation, its Apply button is removed and OK and Cancel are used to continue or to terminate the batch process.

Tips

There is a separate setting in the Color Management settings dialog box that lets you specify an alternative value of the Ask on Mismatch setting that overrides the normal setting during the execution of a bath process. Asking about profile conversion every time a new file is opened can interrupt unattended batch operation. To avoid this, choose a different setting for the batch version of Ask on Mismatch.

As an aid in testing batch processes, you can insert a Bypass transformation (which just passes its input through to its output) and set a breakpoint on it. This causes batch execution to pause at the breakpoint so you can see the results of all the transformations up to the Bypass. Then, at the breakpoint, click OK to continue or Cancel to terminate.