**Phase One Processing: BCS-2**

After scanning the volume, you’ll process the files in BCS-2 in order to separate pages, remove margins, de-skew, and remove noise. Processing in BCS-2 before transferring images is preferable because, unlike other options for post-scanning processing, it does not degrade the quality of the scanned images.

Nevertheless, BCS-2 has several important limitations which you should keep in mind. First, the user cannot undo any processing action performed on a page after navigating away from that page. Second, all page-splitting and masking actions automatically advance to the next page after execution, meaning they cannot be undone. Be conscious of both of these shortcomings when processing files.

The goal in this processing step is to create an image of each page of the volume on which the text or other content is clear, legible, and properly aligned. Additionally, in order to help standardize the page images subsequently, this processing step aims to isolate the page contents, excluding thumbs, dark borders, and excess margins.

Be sure to read the instructions below regarding grayscale and color images before proceeding.

**Splitting the Pages**

First, split the pages using *Manual Split Page Mode*. Either right click and select *Toggle Mask With Inner Margin*.

Drag the red line to the volume’s gutter, and press *Enter* to split the pages. Continue pressing *Enter* for subsequent pages, readjusting the line as necessary.

**Masking the Pages**

After you have split the pages, trim each page image to include only its printed contents using the *Mask* feature. Either right click and select *Toggle Mask* or press *Shift-F11*. Adjust the pink rectangle to fit tightly around the page contents. It’s important not to make the mask too tight, as this may cause text to be rotated out of it during the next processing step. The masking step cannot be undone, so apply it carefully—you’ll have to rescans the page if you make a mistake. When comfortable with the mask, press *Enter*.

The mask at left is too tight; the mask at right is appropriately drawn.
BCS-2 will crop the image and advance to the next page. The mask will remain as you move through pages, though note that it does not retain the same absolute or relative dimensions (instead, it will remain a consistent relative distance from the edges of each image). Thus, you’ll need to resize and reposition the mask appropriately, then press Enter, for each subsequent page.

**Special Cases**
Be careful with this step when the text or other content does not fill the page and is not centered on the page, as at the beginning or end of a chapter or article. In such a case, try to use page numbers, page edges, and other clues to draw the mask around an area similar to that occupied by the text block on other pages. When the page content does not fill the page but is centered on the page, as on some title and section title pages, you can mask only the content. Some pages, particularly covers, may have content that fills the page to the very edges. For now, mask out what you can—it may be very little.

**Deskew, Despeckle, and Clean-up**
Next, Deskew and Despeckle all pages. Press F7 to Deskew and then F6 to Despeckle. Observe the results carefully before moving on to the next page, as you will lose your ability to undo these actions after switching pages. As you page through to do these steps, take the opportunity to fine-tune each image using the Drag Zone commands in Imagetools (Image ➔ Show Imagetools). The Drag Zone and Erase Inner Area command (the white box surrounded by gray hash marks) can be used to select and erase thumbs, black margins, and stray noise in “blank” areas of the page.

BCS-2 lacks custom skew control capability: images can be rotated only one degree, 10 degrees, or whatever amount is determined by the Deskew function.

Although BCS-2 offers the option of running Deskew and Despeckle as batch processes on all pages at once, you should run these actions page by page. When run as batch processes, BCS-2 uses averages that produce inferior results.

**Processing Grayscale and Color Images**
You should perform only some of these above steps on grayscale and color images:
- Split grayscale and color page pairs as usually, then delete any resulting grayscale and color “halves” that are not needed (for instance, a facing page that does not contain a photograph, or is blank).
- Do not apply any masks—you’ll handle cropping, if necessary, later.
- Test Deskew, but note whether the result is desirable. Often, Deskew does not correctly detect skew on pages featuring images. Undo the command if necessary.
- Do not **Despeckle**.
- Do not use **Imagetools** to remove thumbs or black margins.

**Transfer**

When finished with these processing steps, click the **Stop** button at the top of the window, which will close the order and open the “Scan-Orders” dialog. (You can also access this dialog by selecting **Order → Select…**.) Select the order you just completed—in most cases, it will be the final item in the list—and click **Transfer…** in order to copy the completed files into the directory you selected before scanning. (If you’d like to re-open the order for further processing, click **Select…**. A * appears beside orders that have been transferred.)

Click **Yes** to confirm the transfer. Then click **Cancel** to close the Scan-Orders dialog, and close BCS-2.

**SUMMARY**

- Manually split each image into two single-page images.
- Mask each page image to include only the page contents, while keeping in mind the special cases: beginnings and ends of articles, and covers and title pages.
- Deskew and despeckle each page, and clean up any stray thumbs, black borders, and noise using Imagetools.
- For grayscale and color images, only split images and deskew. Do not mask or despeckle.
- Transfer the order to the appropriate folder on the hard drive.