

## Module 2: Imaging Objects

### Module 2B: Imaging Labels Associated with Collection Objects

Task ID	Task Name	Explanations and Comments	Resources
T1	Select and retrieve specimens/lot/container and associated labels.	<p>This workflow assumes that only labels are being imaged. For specimen imaging workflows, label imaging should be commensurate with specimen imaging to reduce redundancy and minimize specimen handling.</p> <p>Selection of labels to digitize may be governed by institutionally determined digitization goals and practices.</p>	<ul style="list-style-type: none"> <li>● Institutional policy or guidelines governing digitization priorities.</li> <li>● Project guidelines.</li> </ul>
T2	Transport collection objects/drawer to staging/photographic/scanning area.	Position drawer on cart or similar to reduce travel time associated with multiple trips and to facilitate workflow.	
T3	Find, isolate, extract specimens from drawer as needed, and determine the specific label(s) to be imaged.	General practice and recommendation is to image all labels associated with a specimen or collection object, regardless of data redundancy, duplication, or label	<p>Institution-wide policy for:</p> <ul style="list-style-type: none"> <li>● selecting labels to image,</li> <li>● dealing with duplicate labels,</li> <li>● camera or scanner (scanner may be better if</li> </ul>

		<p>type. Imaging all labels associated with a collection object while they are available is efficient and only marginally time intensive.</p> <p>In addition, errors in data entry can be easily discovered during proofing and subsequent reviews if labels are imaged with the specimens rather than having to troll through drawers looking for the physical labels.</p> <p>Caution is required for handling labels as some may be very fragile.</p>	<p>labels enclosed in polyethylene/Mylar).</p>
<p><b>T4</b></p>	<p>Check to make sure label and collection object are correctly associated.</p>	<p>This step ensures that the association between label and collection object is correct before imaging.</p> <p>This is also an opportunity to make sure the collection object and the label can be correctly re-associated after imaging (e.g., make sure the specimen number is written on both the label and the specimen). Caution:</p>	

		<p>Historic collections may be subject to “specimen hopping,” thus a label may not be one related to the specimen in the tray. A view of the entire drawer usually allows such errors to be corrected.</p> <p>Safest practice is to image labels from a single tray/drawer and return those labels to the tray/drawer before imaging succeeding trays/drawers.</p>	
<p><b>T5</b></p>	<p>Prepare labels for imaging.</p>	<p>Labels may be fragile. Technicians should be trained to handle them with care.</p> <p>Labels may need to be flattened or unfolded.</p> <p>Labels affixed to collection objects present special problems. Since many of these labels are old and fragile, it is safest to image the label while affixed to the collection object (whether by putting the collection object on a scanner or imaging it with a</p>	

		camera).	
<b>T6</b>	Image label(s).	<p>Institutional policies vary regarding label imaging. Some prefer to include multiple labels in single or multiple composite images. Others prefer a single label per image.</p> <p>Labels with data on both sides require multiple images.</p> <p>Multiple labels for the same specimen should be imaged together.</p> <p>Whatever policy is adopted, it is important to ensure that all images are linked to the specimen or lot database record to which they refer. A visible notation within the images noting which side of the label has been recorded is helpful.</p> <p>Including the specimen/lot catalog number or digitization project identifier within each label image ensures that an image can be visually linked to the</p>	<ul style="list-style-type: none"> <li>● Adobe Lightroom or similar.</li> <li>● Image capture software.</li> <li>● Image processing software.</li> <li>● Digital camera.</li> <li>● Flatbed or other scanner.</li> <li>● Institutionally specific imaging protocol.</li> </ul>

		<p>specimen it represents.</p> <p>Including some or all of the data above in the image EXIF (exchangeable image file format) or associated IPTC (International Press Telecommunications Council) metadata within the image is a consideration and can be accomplished with Adobe Lightroom or similar products.</p>	
<b>T7</b>	<p>QC images. Re-image as necessary.</p>	<p>This is an iterative step during which images from T6 are checked for quality and immediately re-imaged as necessary until a satisfactory image is obtained.</p> <p>Quality control includes: Check images for:</p> <ul style="list-style-type: none"> <li>● sharp focus (it is best to zoom images to 100% to discern clear focus),</li> <li>● clarity,</li> <li>● completeness,</li> <li>● clear view of entire page,</li> <li>● proper orientation.</li> </ul>	Technician.
<b>T8</b>	Clean/conservate label (if needed) and re-associate with specimen.	<ul style="list-style-type: none"> <li>● Clean label and place in</li> </ul>	<ul style="list-style-type: none"> <li>● Groom Stick to clean label.</li> </ul>

		<p>protective sleeve.</p> <ul style="list-style-type: none"> <li>• Some institutions take this step before scanning the label to improve text visibility.</li> </ul>	<ul style="list-style-type: none"> <li>• Mylar sleeve or archival tape.</li> </ul>
<b>T9</b>	Return specimens to shelves or cabinets.	Ensuring that containers are re-filed in their original locations and order should be specifically stated in the written workflow protocol.	<ul style="list-style-type: none"> <li>• Technician.</li> <li>• Cart or transport vehicle.</li> </ul>
<b>T10</b>	Archive image.	The succeeding workflow module for many institutions involves creating database records for each specimen/lot and attaching or linking label image to them, or linking/attaching the images to existing database records. Processes for transitioning to this activity are important.	<ul style="list-style-type: none"> <li>• Technician.</li> <li>• Database software.</li> <li>• Computer hardware.</li> </ul>