

# Digitalização EAACONE: Fluxo de trabalho

## Overview

There are a few basic steps for digitizing each object. The digitization workflow is straightforward, and it should only take a few minutes to create a high quality scan of a document page or photo.

This document will provide detailed instructions for each step in the digitization process. If there is any step in the process that is unclear from this document or the workshop, please let us know so we can improve our documentation practices in the future. If there are any steps that seem unnecessarily complicated or insufficient, please let us know so we can improve the workflow itself.

This workflow document is divided into the following steps and appendices:

## Contents

Overview .....	1
1. Daily setup & launch .....	2
2. Object identification & file naming.....	2
3. Preview .....	7
4. Edição: Recorte y correção de cor .....	9
a. Recorte.....	9
b. Correção de cor.....	10
5. Final scan & check.....	11
Appendix A: Glossary of terms.....	12
Appendix B: List of VueScan settings .....	13
Menu Entrada .....	13
Menu Recortar .....	13
Menu Filtro.....	13
Menu Cor .....	14
Menu Saída .....	14
Menú Preferencias.....	14
Appendix C: Scanning bound items .....	15
Appendix D: Scanning oversized items .....	16

## 1. Daily setup & launch

At the beginning of each day, you will need to turn on the scanners and computers, and plug the scanners into the computers using the USB cable. Once a scanner is plugged into the computer, turn the power on using the power button or switch, and wait a few moments for it to turn on completely.



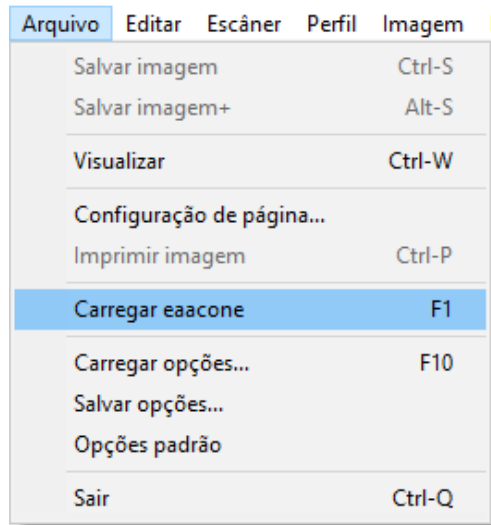
Once the scanner you will be using is on and plugged into the computer, launch the VueScan software.



## 2. Object identification & file naming

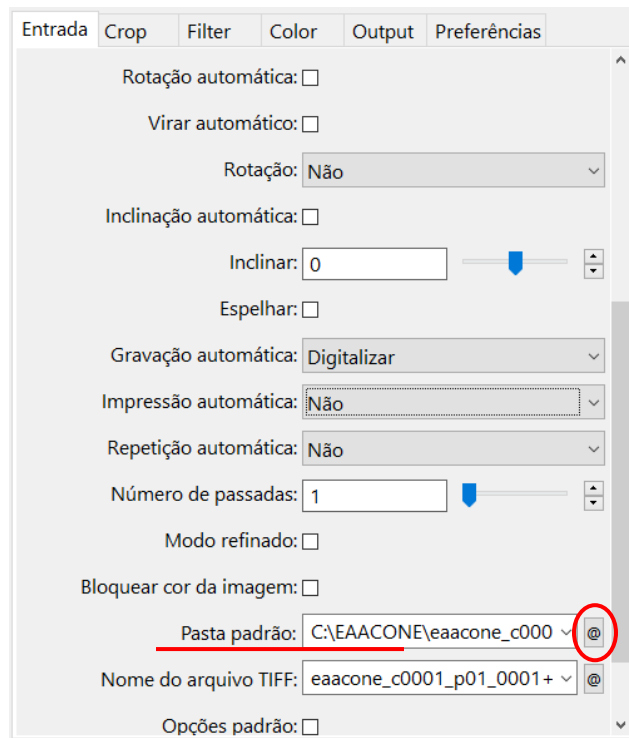
Before a folder of objects can be scanned, the box and folder number must be identified. The box and folder number assigned must be unique and never repeated anywhere else in the collection. The box and folder number will determine the filenames generated during the scanning process.

We have configured VueScan to make the scanning process as easy as possible. When you launch the software, click “Arquivo > Cargar opciones...”.



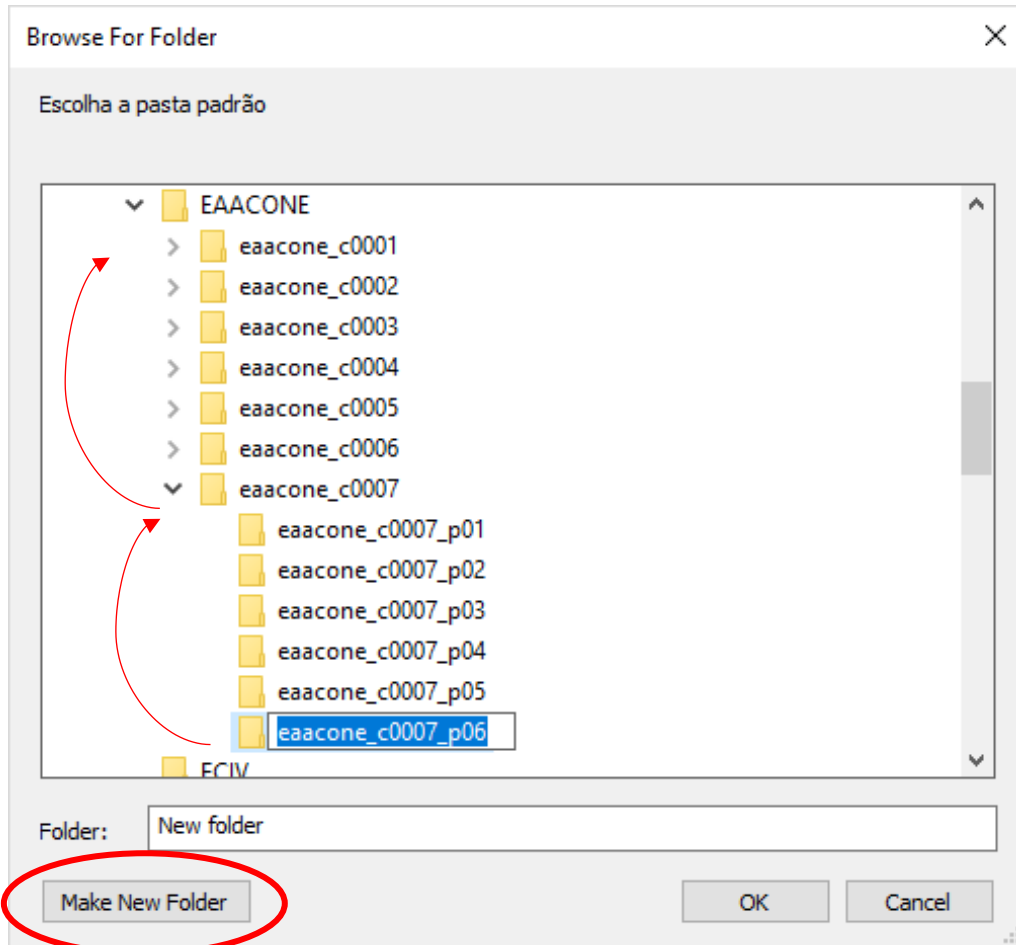
Selecting the right profile will load a set of pre-configured options for the scanner, to make it easy to begin scanning. The only options that will need to be changed are the box and folder number of the items to be scanned.

Next, we need to set the folder where the scans will be saved. Scroll to the bottom of the “Entrada” tab. Click the “@” symbol to the right of “Pasta padrão:”.



Select the corresponding box and folder number in the window that appears. If the folders for these do not already exist on the computer, create them by clicking on the “Make New Folder” button.

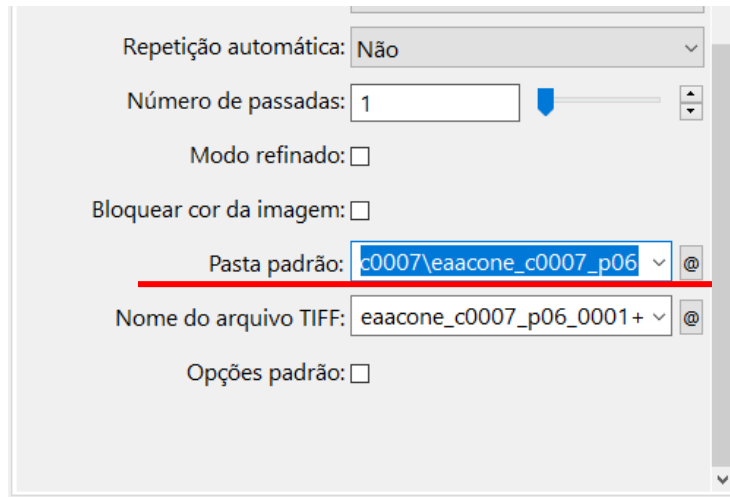
- Enter the correct box and folder number in the box that appears, including the collection name.
- Remember to always type the box number as 4 digits, and the folder number as 2 digits.



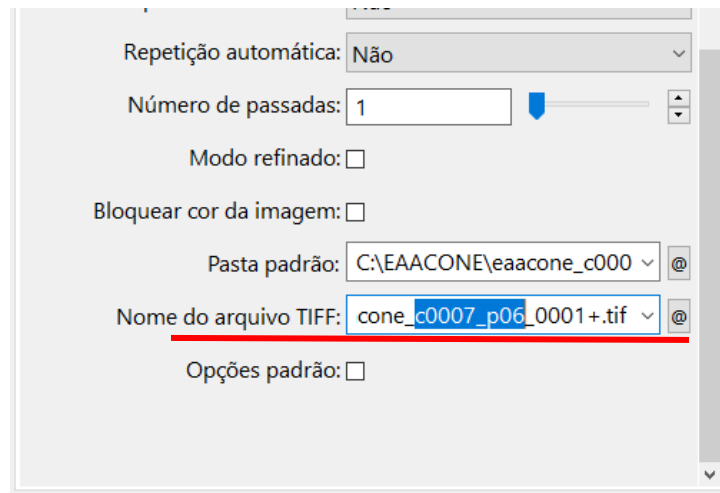
In this example, we would be getting ready to scan folder number 06 from box number 0007, so we created a new folder on the computer and selected it in this window.

- The folder, eaacone\_c0007\_p06 goes inside the box folder, eaacone\_c0007, which goes in the main EAACONE folder.
- Click “OK” once you have created & selected the correct folder.

Back in the Entrada tab, scroll to the bottom of the menu, and check the contents of the “Pasta padrão:” box to make sure it shows the same folder you just selected or created.

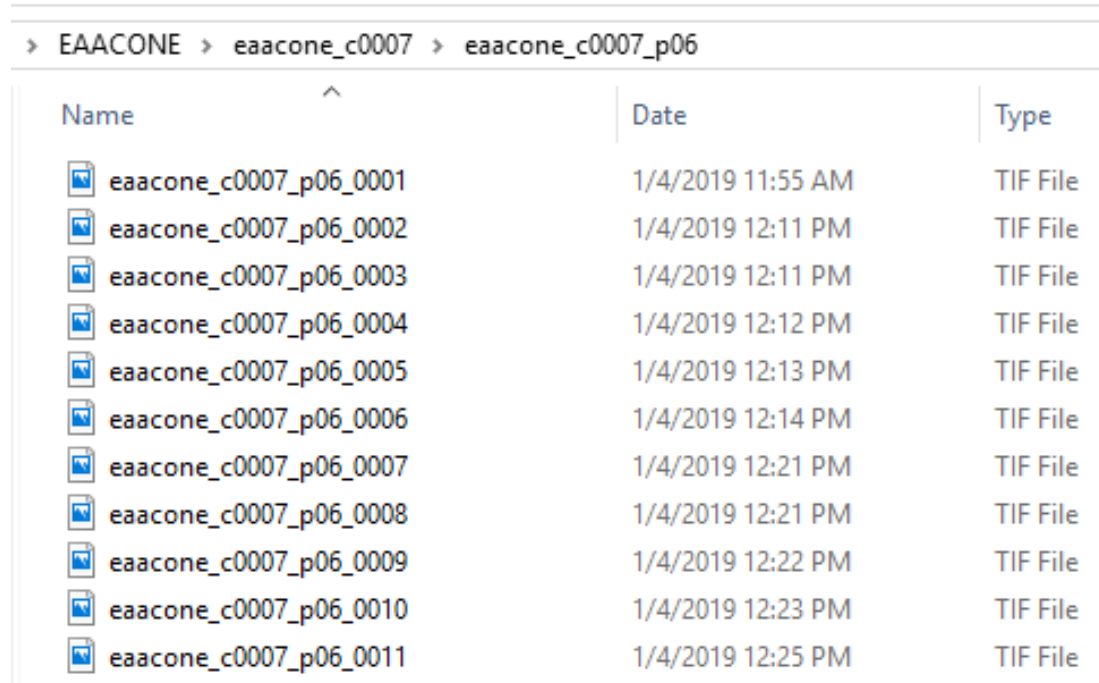













Next, we need to configure VueScan to give each scan the correct file name. Edit the “Nome do ficheiro TIFF:” field to include the correct box and folder number:



The + symbol at the end of the file name tells VueScan to count up with each scan and increase the page number for each saved image, so we don’t have to manually type it in for each scan.

Once these options are set, an entire folder can be scanned before they need to be changed again, and the result will look something like this:



Name	Date	Type
 eaacone_c0007_p06_0001	1/4/2019 11:55 AM	TIF File
 eaacone_c0007_p06_0002	1/4/2019 12:11 PM	TIF File
 eaacone_c0007_p06_0003	1/4/2019 12:11 PM	TIF File
 eaacone_c0007_p06_0004	1/4/2019 12:12 PM	TIF File
 eaacone_c0007_p06_0005	1/4/2019 12:13 PM	TIF File
 eaacone_c0007_p06_0006	1/4/2019 12:14 PM	TIF File
 eaacone_c0007_p06_0007	1/4/2019 12:21 PM	TIF File
 eaacone_c0007_p06_0008	1/4/2019 12:21 PM	TIF File
 eaacone_c0007_p06_0009	1/4/2019 12:22 PM	TIF File
 eaacone_c0007_p06_0010	1/4/2019 12:23 PM	TIF File
 eaacone_c0007_p06_0011	1/4/2019 12:25 PM	TIF File

Note that the file name for each individual image contains the **collection name** (eaacone), a **box number** (c0007, in this example), a **folder number** (p06), and a **page number** (0001 through 0011). This helps us keep everything organized, so we always know where an image belongs.

- It's also the reason why it's so important to keep each object in place once it has been assigned to a box and folder.
- Once the box and folder number have been assigned and entered in VueScan, we can begin the scanning itself.

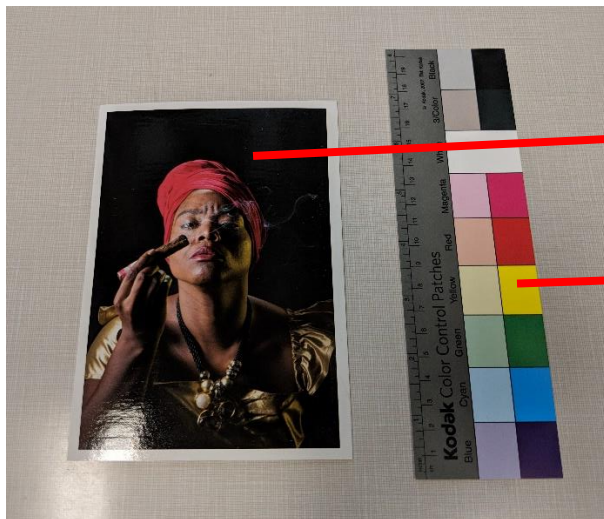
### 3. Preview

Lift the cover of the scanner and carefully place the object face down in the middle of the scanning bed. Leave space between the edge of the item and the edge of the scanner bed, if possible.

- Straighten the object as much as you are able.
- If you are scanning a photo or another kind of object whose color is particularly important, place the color checker card face down next to it.
  - The color checker should be placed parallel to the object's right or bottom edge, not the top or left side.

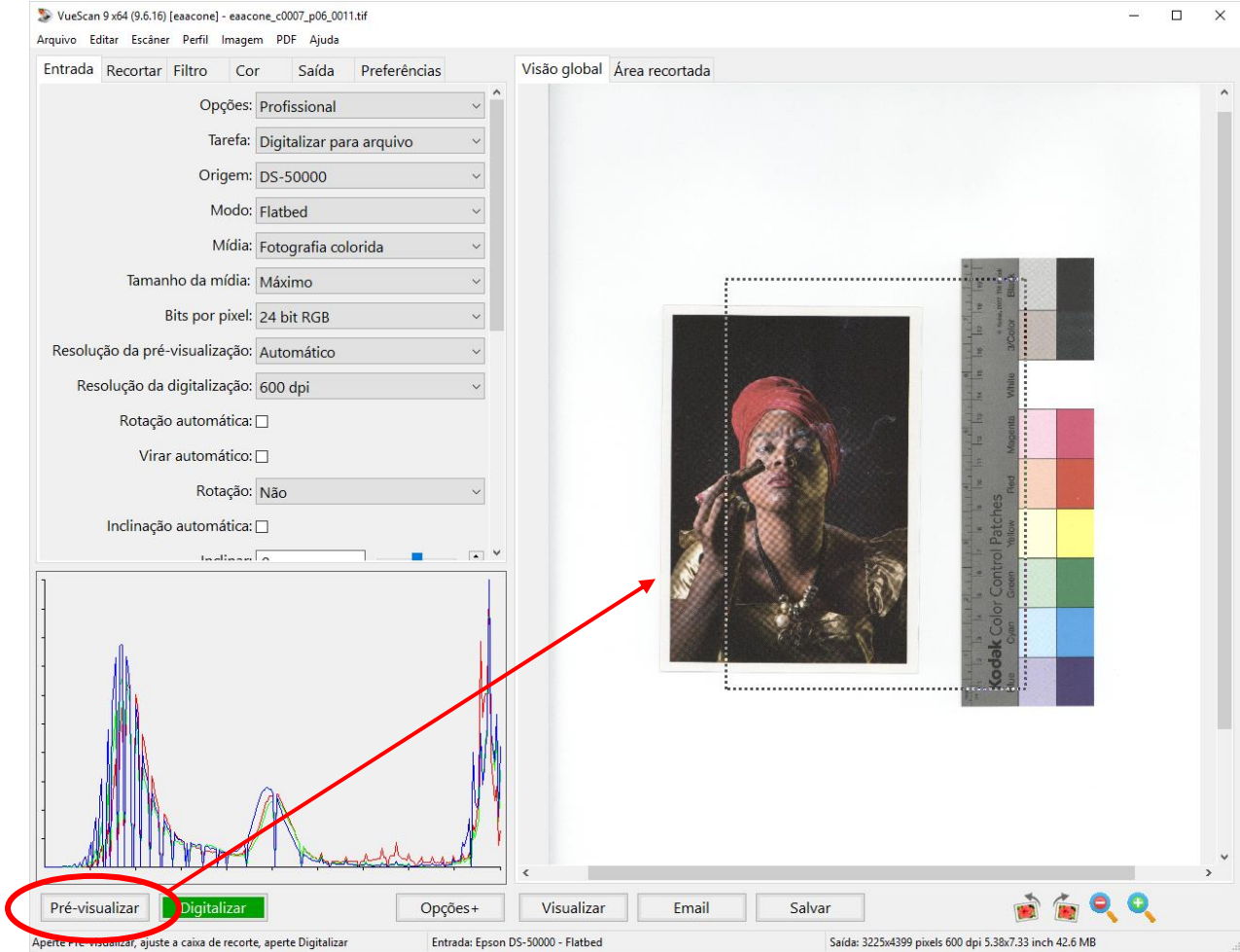
Once the object and color checker card are in place, carefully lower the scanner cover.

- If the object is too fragile and lowering the scanner cover will cause damage, see Appendix D: "Scanning oversized items" for instructions on removing the scanner's cover and using an alternative backing.



In VueScan, click the “Visualizar” button at the bottom of the screen. This will create a lower-resolution scan for you to review.

- You can use this to adjust the position of the object or color checker on the flatbed.
- If you move anything on the flatbed, you should always create another Visualizar before moving on to the next step.



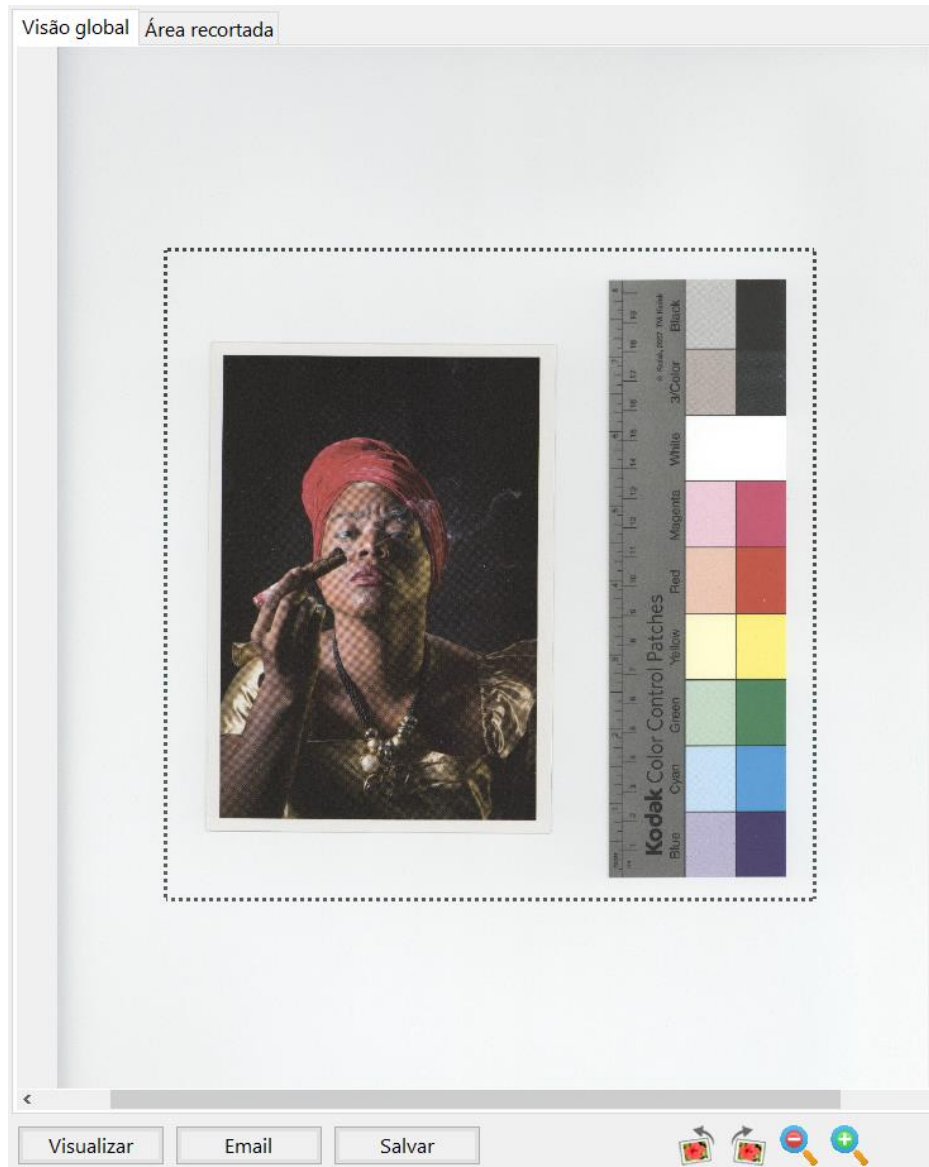


#### 4. Edição: Recorte y correção de cor

Next, we will perform a few brief edits using the preview image.

##### a. Recorte

Clicking and dragging with your left mouse button, draw a box around the preview image. The box should include the object, the color checker card (if it is present), and a small amount of blank space around each. You can also click and drag the edges of the box to adjust it.



Leave the box in place. If the object or color card are moved at all, you will need to create another Visualização and re-draw the box.

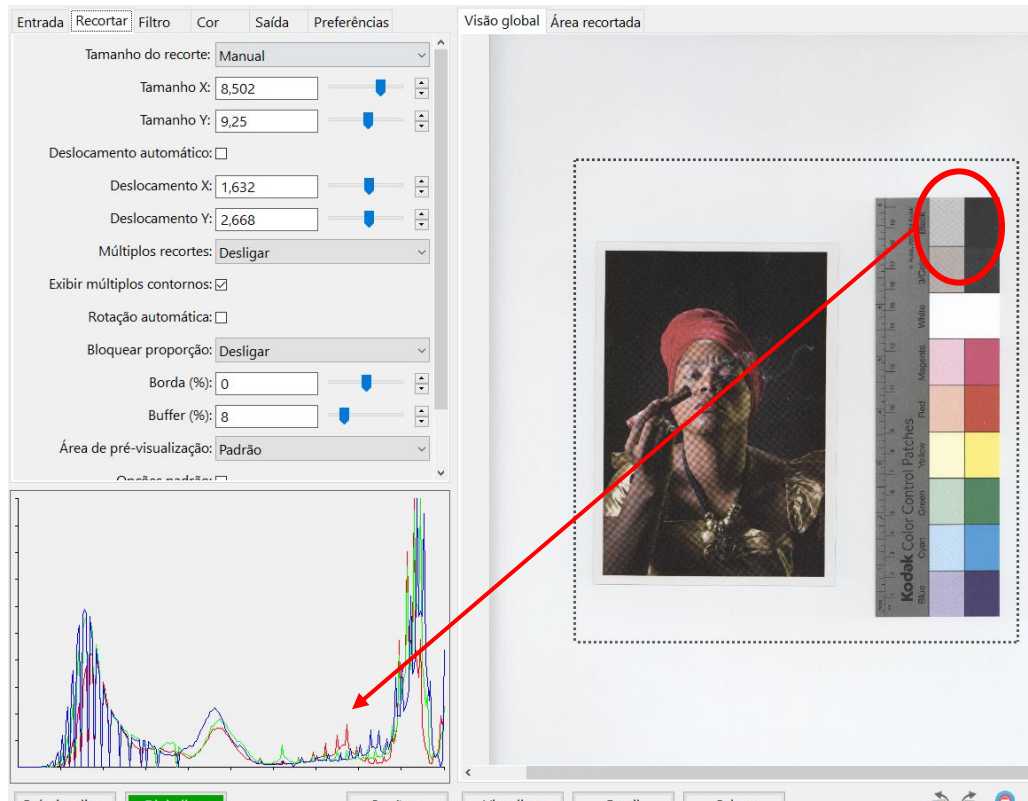
## b. Correção de cor

If the color checker card is present, we will use it to correct the color of the image.

- Each scanner captures color in a slightly different way, but the color checker card is printed using very precise, specific colors that will help us ensure that all our objects (especially photos) are accurately scanned.
- We do this by identifying a “neutral” color in the preview image.

Mouse over the grey square of the color checker card in the preview and right-click it.

- This will adjust the color of the image slightly, and you should see the graph in the bottom-left change.
- It may be difficult to notice any change in the image itself, but that just means the scanner was already capturing the color accurately.



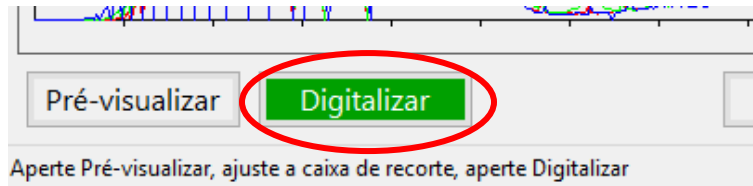
Not all objects will need correção de cor. Because the color checker card is very fragile and vulnerable to scratches and fading, it is best to use it only for photos, images, and other color-rich objects.

For office documents and other predominantly text objects, the scanners should do a good enough job of capturing color on their own.

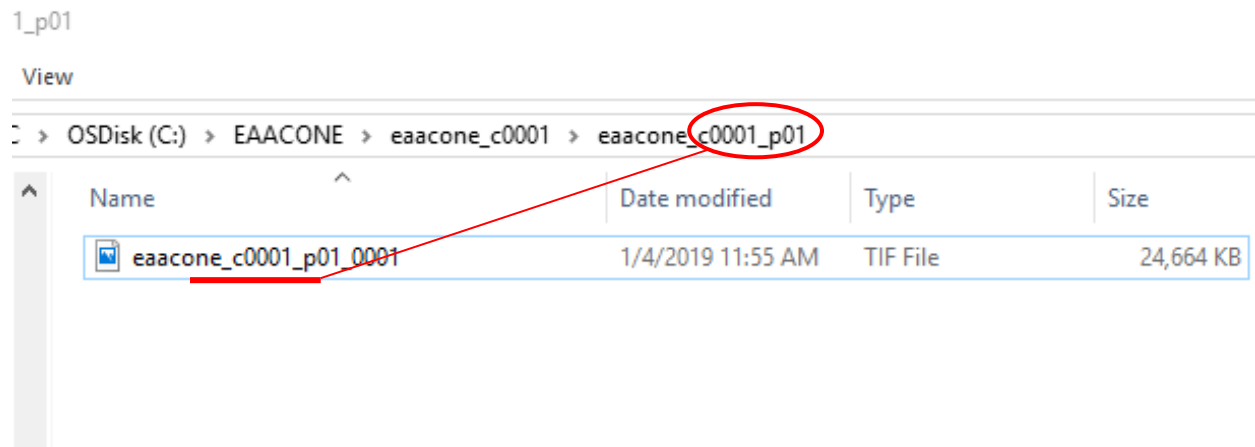
## 5. Final scan & check

Click the “Digitalizar” button. This will create a high-quality scan in the folder we selected, which will be named after the file name template we specified in Step 2 “Object identification and file naming”.

- The software will automatically crop the image and correct the color according to the edits we performed in Step 4 “Edição”.



A window should open to show the folder where the image was saved. Double-check that the image that was created has the correct file name (the folder number in the filename should match the digital folder itself), and that the image can be opened.



If the filename is correct and the image looks good, you can scan the back side or next object in the folder. Repeat the process starting at Step 3 “Visualizar” for each scan.

Once an entire folder has been digitized, create a checksum file for the folder, and advance to the next folder.

- See the “Criar e verificar arquivos de identidade/checksums com Total Commander” document for instructions on creating checksum files.
- Remember to double-check the “Pasta padrão” and “Nome do ficheiro TIFF” fields when beginning the scanning process for the next folder.

Copy folders from the computer to the hard drive at the end of each day, and be sure and record which box and folder numbers have already been digitized to avoid repeating the scanning process or creating multiple folders with the same name.

## Appendix A: Glossary of terms

A number of terms used in this workflow may be confusing or arcane. This glossary provides a definition of many terms used in the guide and VueScan software.

### **Bits por píxel**

Also called “profundidade de bits”. This refers to the amount of color data captured in each pixel of a digital image. Saving more color data in each pixel results in more precise scans, but creates larger image files. We suggest using 24 bit RGB for this collection, which captures good color detail without creating massive image files.

### **Pasta padrão**

The folder where scanned images will be saved. This should always correspond to the box and folder number of the physical folder that will be scanned.

### **Compressão dos ficheiros digitais**

The computer can compress image files to make them smaller. This is helpful in some circumstances, but reduces image quality and affects the integrity of the image. For this project, we will not use any image compression.

### **Correção de cor**

While scanners are relatively good at capturing and replicating color, there are always slight differences between the color of an object and its scan. Correção de cor refers to the process of refining the color fidelity of an image, usually by specifying a known neutral color. We use the grey square on the color checker card and VueScan’s easy color correction feature to accomplish this.

### **Resolução da digitalização (DPI/PPP)**

This measurement relates an object’s physical size to the size of the scanned image that is created. “DPI” refers to “Dots per inch” or “pixels por polegada” of the original object. Higher DPI/PPI results in a more detailed scan and a larger image. In general, smaller and more detailed objects require higher DPI/PPI to produce detailed scans. For this project we recommend using 600 DPI, which scans objects in very high detail without creating unnecessarily large images. A high DPI for office documents is generally unnecessary, because it captures more detail than is necessary to read a page of text.

### **Formato TIFF**

TIFF is an uncompressed digital image file format that we will use for this project. TIFF is a great format for libraries and archives because it can capture high levels of detail and can be opened on any computer without any special software.

### **Naming template**

This refers to a pre-determined format for digital file names. We use a naming template that ensures that every single scanned image has a file name that is unique and that contains all the information we need for it (collection name, box number, folder number, image number). We also use the naming template feature in VueScan to automatically assign file names, so we don’t have to manually and laboriously type one in each time we create a scan.

## Recorte

This refers to the process of cutting an image down to discard unwanted parts, such as blank space. VueScan has a built-in tool for recortes that we will use.

## Appendix B: List of VueScan settings

Although we have created pre-set settings for VueScan for each resolution, it may be necessary to re-configure the settings at some point, for example if VueScan has to be re-installed and the pre-set settings are lost. This section will list each suggested option for use in VueScan.

### Menu Entrada

*Opções:* **Profissional**

*Tarefa:* **Digitalizar para arquivo**

*Origem:* **Epson WorkForce DS-50000**

*Modo:* **Flatbed**

*Media:* **Fotografia colorida**

*Tamanho de media:* **Máximo**

*Bits por pixel:* **24 bit RGB**

*Resolução da pré-visualização:* **Automático**

*Resolução da digitalização:* **600 dpi**

*Rotação automática:* **Não**

*Virar automática:* **Não**

*Rotação:* **Não**

*Inclinação automática:* **Não**

*Inclinar:* **0**

*Espelhar:* **Não**

*Gravação automática:* **Digitalizar**

*Impressão automática:* **Não**

*Repetição automática:* **Não**

*Número de passadas:* **1**

*Modo refinado:* **Não**

*Bloquear color de imagen:* **Não**

*Pasta Padrão:* **[Desired box and folder number]**

*Nome do ficheiro TIFF:* **[Desired file name matching the box and folder number in Pasta Padrão, ending with 001+]**

*Opções padrão:* **[Check this to reset all VueScan options]**

### Menu Recortar

Options found in the menú Recortar will automatically change from one image to the next as recortes are applied. There is no need to configure these manually.

### Menu Filtro

No options in the Filtro menu should be selected

## Menu Cor

Options found in the menu Cor will automatically change from one image to the next as correções de cor are applied. There is no need to configure these manually.

## Menu Saída

*Pasta padrão:* **[Same desired folder number as in the Menu Entrada]**

*Tamanho de impressos:* **Tamanho da digitalização**

*Ampliação (%):* **100**

*Nome do arquivo automático:* **Sim**

*Arquivo TIFF:* **Sim**

*Nome do arquivo TIFF:* **[Same desired filename as in the Menu Entrada]**

*Redução de tamanho TIFF:* **1**

*Múltiplas páginas TIFF:* **Desligar**

*Tipo de arquivo TIFF:* **24 bit RGB**

*Compressão TIFF:* **Desligar**

*Formato DNG TIFF:* **Não**

*Perfil para TIFF:* **Sim**

*Arquivo JPEG:* **Não**

*Arquivo PDF:* **Não**

*Arquivo de texto OCR:* **Não**

*Arquivo do índice:* **Não**

*Arquivo RAW:* **Não**

*Descrição:* **Nada**

*Direito autorais:* **Nada**

*Data:* **Nada**

*Marca d'água 1:* **Nada**

*Marca d'água 2:* **Nada**

*Arquivo log:* **Sim**

*Tamanho do arquivo log (MB):* **100**

*Opções padrão:* **[Check this to reset all VueScan options]**

## Menú Preferencias

*Idioma:* **Português**

Adjust other display options as needed.

To save these settings and load them later, select “Ficheiro > Gravar opções...” and give the file a recognizable name. Configurações prédefinidas can be copied between computers if needed.

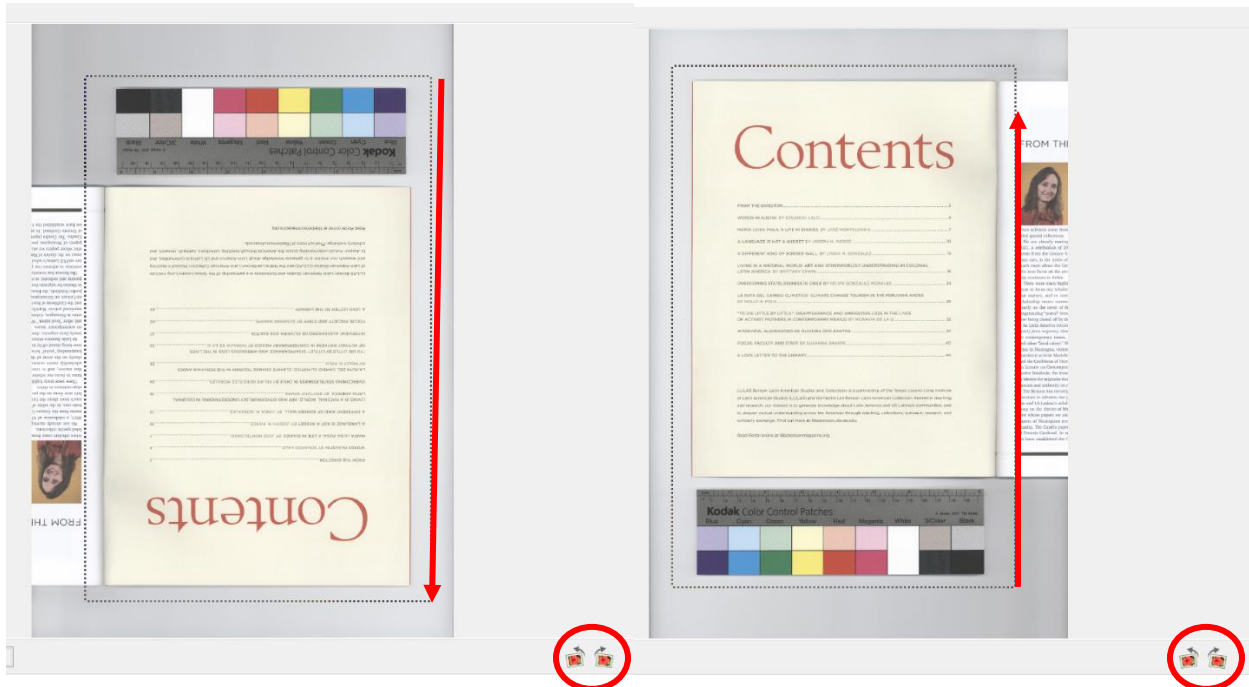
## Appendix C: Scanning bound items

The cover of the scanner can be removed to make it easier to scan books and other bound items. Bound items should be scanned in order, starting with the cover, using the regular workflow outlined above. To scan a page, hang the spine over the front edge of the scanner and carefully lower the cover. Gently press the cover down to hold the object in place, then preview & scan the page before flipping to the next page and repeating the process.



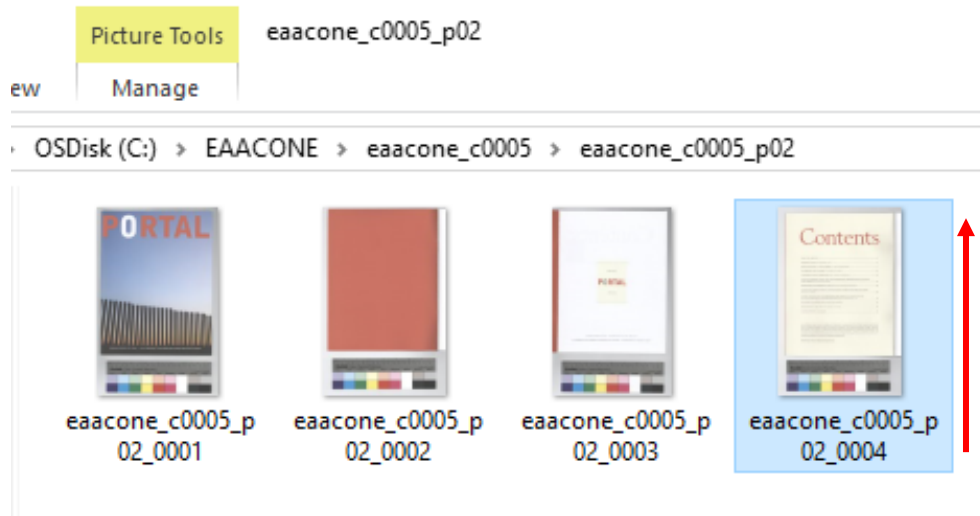
Because scanning each page in order means flipping the object over between each scan, it is necessary to flip each image in VueScan. Just like the recorte and correção de cor steps, this should be done after the preview scan is created, before creating the full scan.

To flip an image, simply click either of the rotate buttons to the bottom right of the preview two times.





When the full scan is created, the recorte & image rotation will be applied, and a cropped, upright image will be saved on the disk.

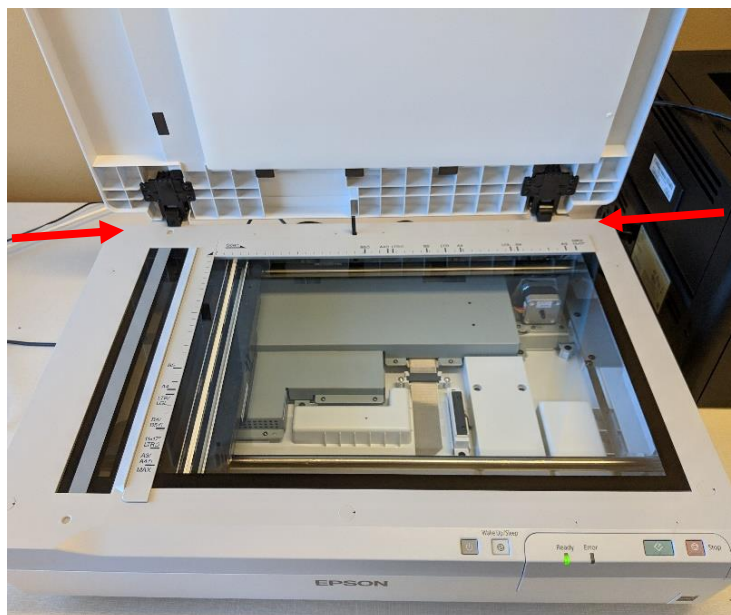


Remember that it will be necessary to flip each image this way when scanning bound objects.

#### Appendix D: Scanning oversized items

Some objects in the collection, for example large posters, may be too large to fit on either scanner. It may still be possible to digitize these objects by scanning the objects in multiple sections, which can be stitched together using Photoshop.

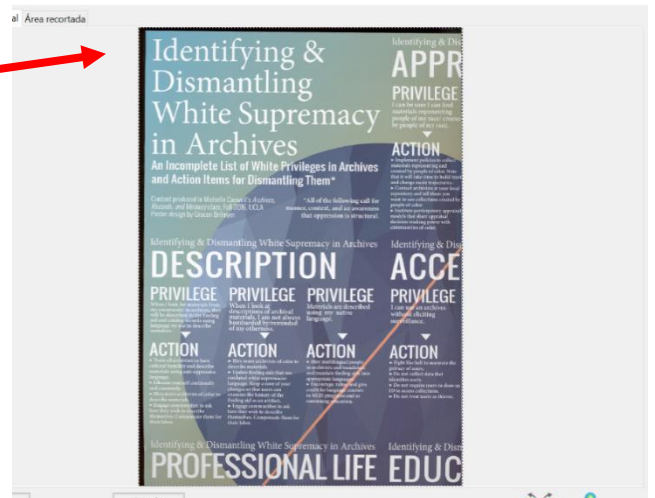
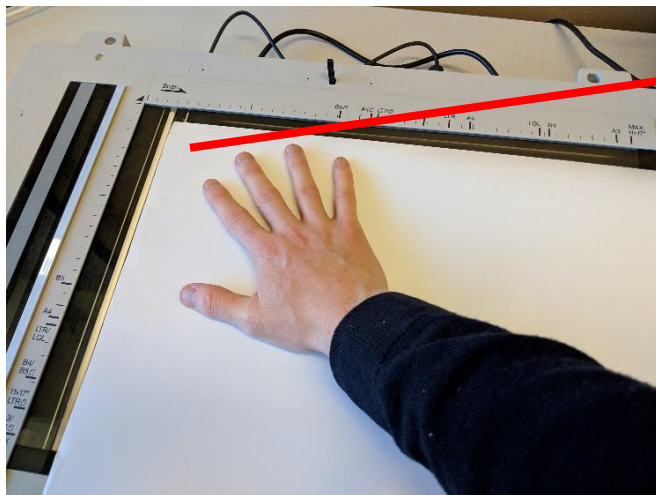
To accomplish this, first remove the scanner's flatbed cover. Raise the cover up and gently lift it out of the base of the scanner. Carefully place the cover down on its back (the top, when the scanner is closed) on a table or surface.



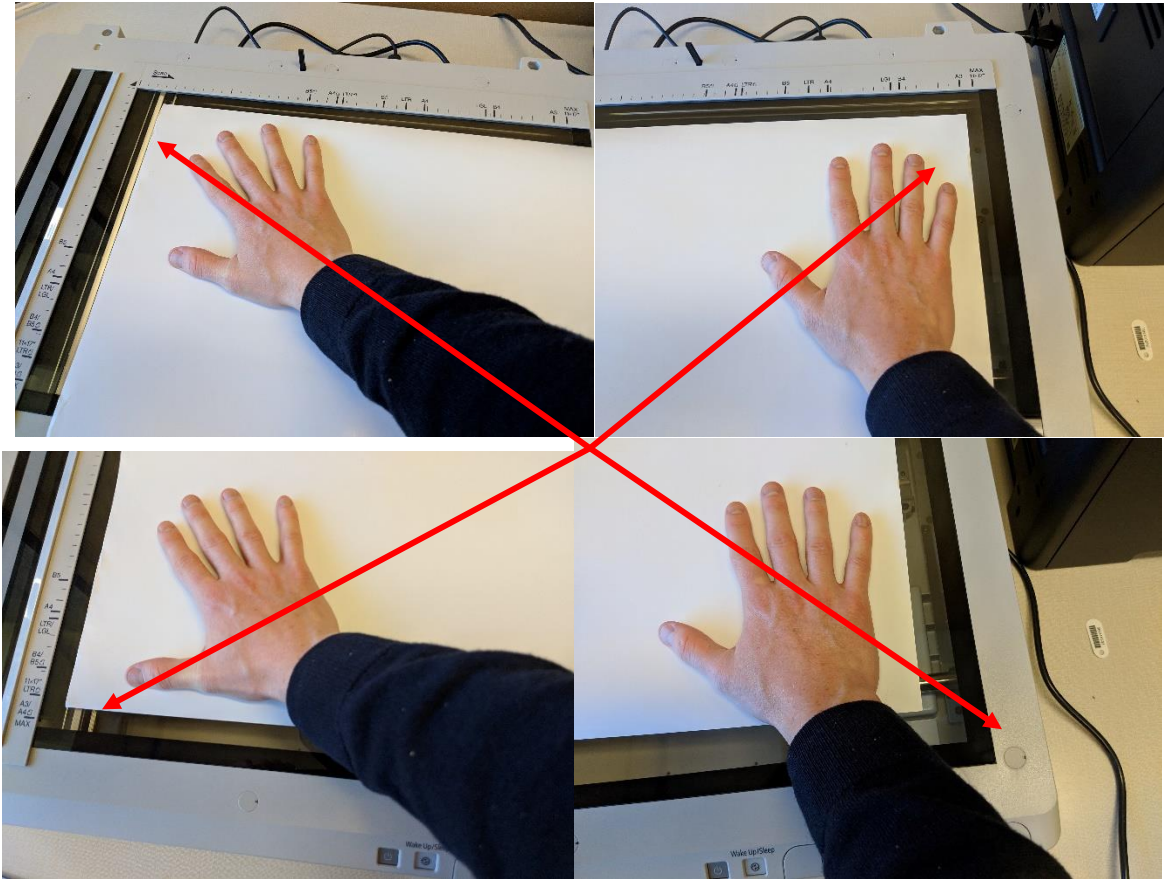


With the cover removed, carefully place the poster or other large object on the flatbed.

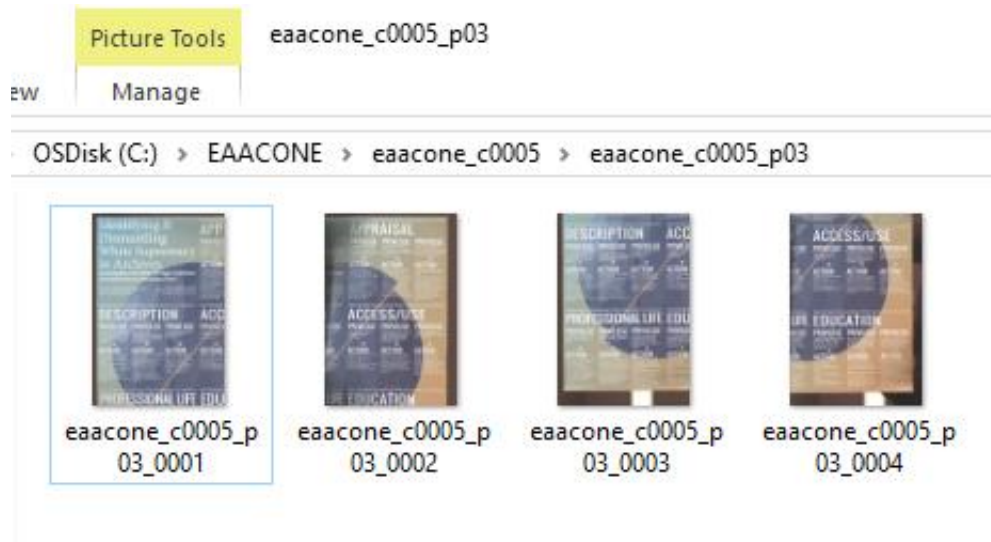
- Carefully lower the replacement cover or cardboard, if you have one, to cover the back of the object.
- Preview and scan the top-left corner of the poster, just like you would any other object.
- The filename should follow the same conventions as any other object you scan, with the series name, folder number, and image number.



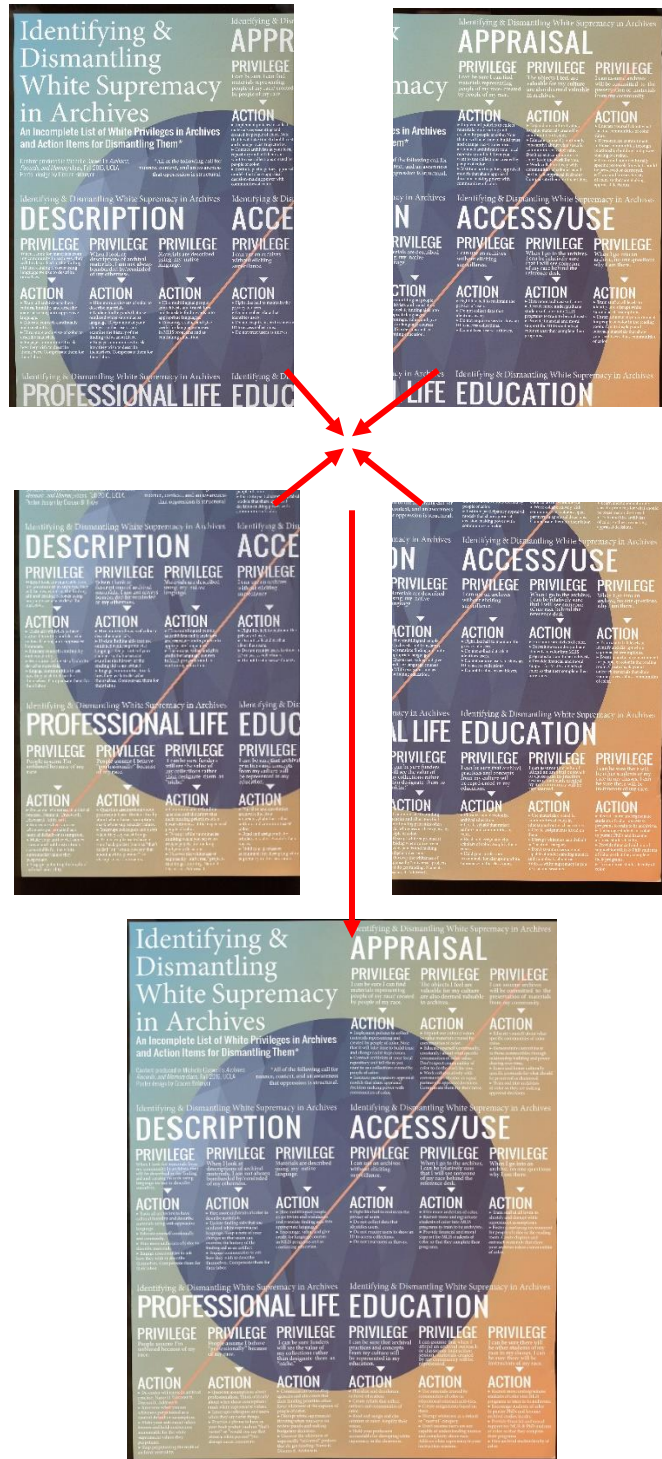
Paying attention to which parts of the object were scanned, move the object down along its side and scan the next section. Include some overlap with the first image, as this will be useful when stitching the image together later.



Proceed in this way until every section of the object has been scanned. When entering metadata for the poster, make a note of the names of the files that will need to be merged.



When the scans arrive at the Benson via the hard drive, we will stitch them together using Photoshop, and send a download link for the stitched image for EAACONE & ISA to retain.



After scanning the large object, carefully replace the scanner cover.