



DAACS Cataloging Manual: Images

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The DAACS Image Manual documents how images are produced and linked to records in the DAACS PostgreSQL database. This manual is one of sixteen DAACS Cataloging Manuals. Each manual documents a specific module of the DAACS database, and they provide protocols for using each module. In addition to defining each data field (meta data), the manuals describe how data should be entered into data field, provide guidance on artifact identification, and give examples of how artifacts should be cataloged.

The DAACS database was developed in 2000 by Jillian Galle and Fraser Neiman, in collaboration with members of the [DAACS Steering Committee](#). Jillian Galle, Fraser Neiman, and DAACS Staff, including Leslie Cooper, Lynsey Bates, Lindsay Bloch, Elizabeth Bollwerk, Jesse Sawyer, and Beatrix Arendt, led the development of cataloging protocols. In addition to DAACS staff and steering committee members, Monticello current and former Archaeology Department staff, Jennifer Aultman, Sara Bon-Harper, Derek Wheeler, Donald Gaylord, Karen Smith, and Nick Bon-Harper also contributed to the development of cataloging protocols. Jennifer Aultman and Katherine Grillo produced the initial versions of these DAACS manuals in 2003. They have been continuously revised by DAACS staff in the intervening years.

This manual was substantially revised for the introduction of the Bronze, Silver, and Gold cataloging tiers in 2022, and in preparation for the new website launch in 2024. These revisions were made by Galle and Bollwerk and by DAACS analysts Iris Puryear, Allison Mueller, and Catherine Garcia.

Convoy, a web design and graphic design company based in Charlottesville, Virginia, initially programmed the DAACS database in SQLServer (2001-2013). The University of Virginia's Institute for Advanced Technology in the Humanities (IATH) built and currently maintains the PostgreSQL version of the DAACS database (2014-present). Convoy also designed the original DAACS website (2004), and has since redesigned the website twice (2014, 2024).

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1. THE DAACS DATABASE

The DAACS database was designed by Galle and Neiman in 2001 with direct input from the DAACS Steering Committee and collaborating institutions. Today DAACS' large relational database is comprised of over 200 tables programmed in open-source PostgreSQL. It is linked to a Ruby-on-Rails web-based interface that allows DAACS Research Consortium members to access the database through a web browser with a login from anywhere with a working internet connection. For a detailed summary of the DAACS database and history of DAACS, please see Galle, Bollwerk, and Neiman 2019.

In 2018, a major grant from the National Endowment for the Humanities' Digital Humanities Division provided funds to develop a tiered cataloging interface that would allow DRC users to engage with the database on a variety of levels while retaining the data standards and integrity built into the original system. This new interface, with its Bronze, Silver, and Gold tiers, went live in March 2022. This project was a collaboration between DAACS, The University of Virginia's Institute for Advanced Technology in the Humanities, and Convoy.

2. ABOUT THIS MODULE

The Image Module serves as the repository of all of the images that are searchable via the Image Queries at daacs.org.* All photographs and non-site map images that are accessible on the Site Images tab for each site at daacs.org, as well as artifact images and stylistic element glossary images have individual records in the Image Module. When applicable, Image Module records are tied to, or related to their respective artifact, object, or context record in the database. More than one Image record can be connected to a single artifact, object, or context record. For example, if you have three images of the same artifact, all three image records can be linked to the single artifact record. Similarly, the same image record could be connected to multiple artifact, object, or context records if applicable. A single image of a feature may contain multiple contexts, therefore that image could be linked to multiple context records.

Please note that creating an image via the Image Module is the first step in being able to link an image to an existing artifact, object, or context record. The image must first exist before it can be linked to an individual record. Below we describe the fields contained in the image module. Please see Section 4 for protocols on image creation, file type and file size.

**Note:* DAACS Images are also searchable through the Image Module on daacsrc.org. Users with a DAACS login can access images by navigating to the Image Module interface and using the search tab to search for images via keyword or by entering the appropriate Object, Image, or Project ID.

3. DAACS IMAGES FIELD DEFINITIONS AND PROTOCOLS

3.1 MAIN TAB

3.1.1 IMAGE TYPE

Controlled Vocabulary

Select the appropriate image type from the list:

- 3D Artifact Image
- Artifact
- Field
- Object
- Stylistic Element*

*Note that this designation applies to images uploaded for use in the DAACS Stylistic Element glossary.

3.1.2 IMAGE SUBTYPE

Controlled Vocabulary

This field is filtered and the resulting choices are based upon the type of image selected in the previous step. The same choices are available for 3D artifact, artifact, and object images.

For **3D Artifact, Artifact, and Object Images**, select the appropriate image subtype from the following artifact categories:

- All Other Artifacts*
- Bead
- Buckle
- Button
- Ceramics
- Faunal
- Glass
- Tobacco Pipe
- Utensils

*This Image Subtype encompasses artifacts cataloged in the General Artifacts Module.

For **Field Images**, choose the appropriate subtype from the following list:

- Drawing Plan
- Drawing Section
- Historic Document

- Photo, feature
- Photo, general fieldwork
- Photo, overall site
- Photo, plan
- Photo, section
- Scanned Records/Notes

For **Stylistic Element Images**, select from the following options:

- Stylistic element, ceramic
- Stylistic element, glass
- Stylistic element, unidentified

3.1.3 ARTIFACT FORM

Controlled Vocabulary

This field is filtered based on the Image Subtype designation. Choose the appropriate term that corresponds to the Form field in the respective artifact record.

Note: This field is disabled for Field and Stylistic Element image types.

3.1.4 ARTIFACT MATERIAL

Controlled Vocabulary

This field is filtered based on the Image Subtype designation. Choose the appropriate term that corresponds to the Material field in the respective artifact record.

Note: For Field and Stylistic Element images, this data field is disabled.

3.1.5 IMAGE DESCRIPTION

Open Text

In order to keep image descriptions as uniform as possible across the database, DAACS requires that catalogers adhere to the following general guidelines for populating the Image Description field:

- **Ceramic Artifacts:** “[Ware Type], [Form], [additional details].”
 - Example: “Pearlware, platter with Pinwheel transfer print.”
- **Glass Artifacts:** “[Form], [Color], [additional details].”
 - Example: “Pharmaceutical vial, aqua, Balsam of Life.”
- **General Artifacts:** “[Form], [Material], [additional details].”

- Examples: “Upholstery tack, copper alloy, hand-made,” or, “Unidentified object, iron, wrought/forged.”
- **Buttons:** “Button, [Material], [additional details].”
 - Example: “Button, copper alloy, military eagle.”
- **Beads:** “Bead, [Material], [additional details, e.g., Button Type and/or Color].”
 - Example: “Bead, Glass, blue polyhedral.”

Descriptions for all other artifact types should follow the same general formula. For Field Images, enter the equivalent of a photograph caption (e.g., what might be recorded on the photo board).

3.1.6 CATALOGUE NUMBER

Open Text

This field only applies to 3D Artifact and Artifact Images. Record the associated Artifact ID(s) here. Remember that once the image has been saved, you must manually link the image record to the associated artifact, object, and/or context record by navigating to the respective record and selecting “Add Image” on the Image Tab.

3.1.7 INSTITUTION

Controlled Vocabulary

Select the appropriate option from the list of Curating Institutions.

3.1.8 DOCUMENT ID

Open Text

For Historic Document images, record the appropriate Document ID. If not applicable, leave this field blank.

3.1.9 IMAGE CITATION

Open Text

Record any relevant information regarding image/photograph credit.

3.1.10 IMAGE FORMAT

Controlled Vocabulary

Select the appropriate file format for the uploaded image.

3.1.11 FILE NAME

File Upload

Browse to the appropriate image and upload the file. Once the image is uploaded, it resides on the DAACS or DRC server.

3.2 PROJECTS

3.2.1 PROJECTS

List

Select/Check the Project ID Number and Project Name associated with the artifact, object, or field image. This selection allows for sorting of images within the Image tab in artifact, object, and context records. Only images associated with a Project ID can be linked to artifacts, objects, and contexts for that particular project.

3.3 ASSOCIATED ARTIFACTS

This tab allows users to easily navigate from an image to its associated artifact record. The following section provides instructions for how to link an image record to its corresponding artifact, object, or context record.

4. LINKING IMAGES TO ARTIFACT, OBJECT, AND CONTEXT RECORDS

STEP 1

Create Image record (see previous sections).

STEP 2

Locate the individual artifact, object, or context record that relates to that image. Go to the “Images” tab of that record.

STEP 3

Click “+ Add Image.”

STEP 4

Select the appropriate image from the list provided. If the corresponding project has not been selected in the Image record, then your image will not appear in the Images module.

5. PROTOCOLS FOR IMAGE CREATION

5.1 BACKGROUND

Our in-house protocols for image creation require creation of an “original” and an “optimized” image for each Artifact or Object. Based on server space, some institutions may decide to forego

the creation of the “original” image (often large TIFF files) and only create the “optimized” JPEG versions. If you opt for the latter procedure (see 4.4 below), we ask that you maintain the optimized image protocols in terms of 300 dpi resolution JPEGs and naming conventions, in which a p_ (lowercase p underscore) is placed before an artifact or object number (e.g., p_1224-B12.1-DRS--00004, or p_1224-1034).

5.2 ORIGINAL IMAGE: SCANNING ARTIFACTS AND OBJECT

5.2.1 USING PHOTOSHOP SOFTWARE

1. Set Scanner to 300 dpi.
2. Scan Artifact/Object without a scale.
3. The Image will transfer into Photoshop as a TIFF.
4. Make sure the Image is being viewed at 100%. Ctrl+= or View>Actual Pixels from the top tool bar.
5. Use Photoshop to open the 300 dpi scale (<http://drc.iath.virginia.edu/homepage/files> Digital Scale Files - 300 dpi scale or 300 dpi scale 1 cm in TIF format).
6. Copy and paste the 300dpi scale into the Artifact/Object image.
7. Perform any touch-up editing (crop Image, etc.)
8. Save the Image as a TIFF using the “Save As” option into a folder of Original Artifact or Original Object images. *Name the file using the Artifact ID number or Object ID number (e.g., 1224-B12.1-DRS--00004, or 1224-1034 as the file name).
9. A special box with compression options will appear, click “OK.”

5.2.2 IF YOU DO NOT HAVE ACCESS TO PHOTOSHOP

1. Open the original media in a photo editing program.
2. Also open the 300 dpi scale (<http://drc.iath.virginia.edu/homepage/files> Digital Scale Files – 300 dpi scale or 300 dpi scale 1 cm in TIF format).
3. Copy and paste the digital scale onto the Artifact/Object image.
4. Ensure that you can place the available scale (300 dpi TIFF) at the correct resolution and size.
5. Save image as TIFF using protocols in step 8 above.

5.3 ORIGINAL IMAGE: PHOTOGRAPHING ARTIFACTS AND OBJECTS

5.3.1 USING PHOTOSHOP SOFTWARE

1. Set the digital camera to take the best quality image possible within reasonable limits given file sizes.
2. Take photos with a paper cm scale.
3. Move photos from the camera media onto the computer.
4. Open Adobe Photoshop.
5. Select an image from the camera by opening the file in Photoshop.

6. Make sure the Image is being viewed at 100%: Ctrl++ or View>Actual Pixels from the top of the tool bar.
7. Use Photoshop to open the 300dpi scale. See Step 5 above.
8. Copy and paste the 300dpi scale into the Artifact/Object image.
9. Adjust the size of the scale by selecting Edit>Free Transform. Hold the shift key while using the mouse to resize the scale until the Photoshop scale matches the photographed scale.
10. Perform any touch-up editing (crop Image, etc.).
11. Save the Image as a TIFF using the “Save As” option into a folder of Original Artifact or Original Object images. *Name the file using the Artifact ID number or Object ID number (e.g., 1224-B12.1-DRS--00004, or 1224-1034 as the file name).
12. A special box with compression options will appear; just click “OK.”

5.3.2 IF YOU DO NOT HAVE ACCESS TO PHOTOSHOP

1. See steps 1 – 3 above.
2. Open the original media in a photo editing program.
3. Also open the 300 dpi scale (<http://drc.iath.virginia.edu/homepage/files> Digital Scale Files – 300 dpi scale or 300 dpi scale 1 cm in TIF format).
4. Copy and paste the digital scale onto the Artifact/Object image.
5. Adjust the scale to the same size as the photographed scale in the Artifact/Object image. Ensure that the scale is not warped or disproportionate, place the available scale at the correct resolution.
6. Perform any touch-up editing (crop Image, etc.).
7. Save the Image as a TIFF using the “Save As” option into a folder of Original Artifact or Original Object images. *Name the file using the Artifact ID number or Object ID number (e.g., 1224-B12.1-DRS--00004, or 1224-1034 as the file name).

5.4 OPTIMIZING IMAGES FOR UPLOAD TO THE DATABASE

1. Open Original Artifact or Object Image file in a photo editing program.
2. Adjust Image Size such that the longest pixel width is 900 pixels. If both width and length are less than 900, do not adjust the pixels. Keep the image resolution at 300 dpi.
3. Save the optimized Image as a JPEG into an Optimized Artifact or Optimized Object folder using the “Save As” option and adding the prefix “p_” to the file name.
4. Use this image as the one uploaded to the Image Module (see Sections 1 – 3 of this manuals) in the DRC application.