Re:discovery SOFTWARE

Preparing & Submitting Natural History Specimen Data
November 2009, Updated May 2011

Contract catalogers, permitted researchers, non-permitted park researchers, or others who collect and/or document natural history specimens that are to be permanently retained in National Park Service (NPS) museum collections are responsible for ensuring that the collections are cataloged in the NPS collection management system (ICMS)[*]. If you have these responsibilities, follow these instructions to submit the catalog records to the park's curatorial staff.

Before starting your project, contact the park curator to select a documentation option to use for entering catalog data (see two options below), obtain accession and catalog numbers, and receive instructions on submitting catalog data.

Select a Documentation Option:

Option 1–ICMS: Contact the park curator to obtain and install a copy of ICMS and enter the catalog data directly into it. This option allows for user-friendly data entry and ensures that entered data conform to the required formats. When data entry is complete, provide an ICMS backup file to the park curator, who will load the data into the park's copy of the program. In addition to the ICMS User Manual sections cited below, you will also need Chapter 1: System Basics, to learn the basic navigation and data entry techniques of the program.

Option 2–Excel Template: Obtain appropriate Excel Templates from the park curator. Master templates are available at https://science.nature.nps.gov/research/ac/html/CollectionFAQ. Enter catalog data on the templates. If you choose this method, you will be responsible for ensuring that your data conform to the guidance in the ICMS User Manual. Provide the completed Excel files to the park curator, who will import the data into ICMS.

Prepare and Submit Catalog Data

For either documentation option, if you are cataloging Natural History (Biology, Geology, or Paleontology) specimens for NPS collections, follow these procedures and any additional procedures that the park curator may provide:

1. Acquire a copy of the pertinent chapter(s) of the ICMS User Manual. Each chapter describes the mandatory and optional data fields, with field-by-field descriptions, approved data values, and formatting. Read these chapters to understand NPS cataloging requirements. Download the manual chapter(s) at: ftp://ftp.rediscov.com/ICMS/ICMSManual

You will need:
Chapter 2: Cataloging a Biology Specimen, or
Chapter 2: Cataloging a Geology Specimen, or
Chapter 2: Cataloging a Paleontology Specimen

2. Acquire a list of catalog and accession numbers to assign to the specimens you are cataloging. The park curator will supply the catalog numbers and related accession numbers you are to use.

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[*] In 2009, ICMS replaced ANCS+ as the NPS museum collection management database. Where necessary, differences between ANCS+ and ICMS are noted in this document. References to the ICMS User Manual are equivalent in the ANCS+ User Manual.

3. (Documentation Option 2 only): Template files in MS Excel format are available for each discipline (Biology, Geology, or Paleontology). Use the Excel template file appropriate to the specimens you are cataloging. Enter data for the specimens using one row per catalog number/specimen. Use the assigned catalog and accession numbers to identify the specimens. Complete all mandatory columns with the required data, and any other columns for which you have appropriate data. Enter data with appropriate values, in the proper format, as described in the ICMS User Manual. See Detailed Instructions for Excel Templates below.

4. Send the completed Excel file or ICMS backup to the park curator. The curator will review the data for completeness and conformity with NPS data standards. When the data is determined to be acceptable, the curator will import the data into ICMS, following the instructions in the ICMS User Manual, Chapter 8: Moving and Sharing Data.

Detailed Instructions for Excel Templates

The Excel templates include a header row showing the field names as they appear in ICMS. Field names in the header row that are highlighted in orange are mandatory fields which must be completed. Field names highlighted in blue are "Collection Management" fields for park use, some of which are also mandatory. Other fields are optional, but should be completed if appropriate data is available.

Do not alter the field names in the header row. Do not add additional columns, or re-arrange the columns in the template. It is permissible to delete columns that are not used; doing so will simplify the import to ICMS. The researcher and the park curator should coordinate on which columns are deleted.

The templates include a "freeze pane" setting, so the Catalog # column is always visible on the left, and the column header row is always visible at the top.

The templates include the "auto filter" setting on the column header row, so you can review the consistency of your data as you enter records.

The templates also include a sample row, showing data for a sample record. This data provides an example of proper formatting, spelling, and case of standard terms. Not all possible standard terms are shown for the example record. Refer to the ICMS User Manual, Chapter 2, for field-by-field specific examples and lists of standard terms for each field, where applicable. Before sending the completed Excel file to the park curator, you should delete this sample row.

The Catalog # and Accession # columns have been formatted with Courier New, a fixed width font. This makes it easier to view the standard format of these fields, to ensure that data is properly entered.

Mandatory Fields

The Excel templates include a header row showing the field names as they appear in ICMS. Field names in the header row that are highlighted in orange or blue are mandatory fields that must be completed.

In ICMS, these mandatory fields must contain data in order for the catalog record to be considered complete and valid. In some cases the cataloger using the Excel template may need instruction from the park curator on how to complete certain mandatory fields (such as Condition or Controlled Property). Below are listed the mandatory fields for all NPS Natural History catalog records. Refer to ICMS User Manual, Chapter 2, for a complete description of each of these and the other optional data fields.

Mandatory Fields for Natural History Catalog Records in ICMS
Catalog #
Accession #
Cataloger
Classification Lines 1-4 (Includes Kingdom, Phylum/Division, and Class)

Collector, Collection #, and Collection Date
Condition
Controlled Property
Formation and Period/System (Geology and Paleontology only)
Identified By
Location (where the specimen is stored, etc., not where it was found)
Object Status (whether the object is in storage, on exhibit, on loan, etc.)
Status Date (the fiscal year it was placed in storage, on exhibit, etc.)
Scientific Name (includes Genus, Species, etc.)
Storage Unit (either "EA" for individual specimens, or BAG, BOX, etc. as appropriate)
Item Count or Quantity (Item Count if individual specimens, or Quantity if in bags, boxes, etc.)
Latitude/Longitude, or Township/Range/Section, or UTM Coordinates

Fields with Special Formatting

Some fields in ICMS require special formatting. When data is entered directly into ICMS, the program enforces the proper format for these fields. This enforcement isn't available in the Excel templates, so the cataloger must ensure that the correct format is used. Failure to use the proper formatting can cause the import to fail, and can cause additional cleanup work for the researcher or park curator. **Note:** For valid entries in fields controlled by authority tables, please refer to the ICMS User Manual, Chapter 2.

Catalog #	Format: AAAAA9999999. A standard NPS catalog number includes a 4-letter park acronym (use only upper case letters), plus a *unique* number of up to 7 digits, spaced so the last digit is always in the 12th character space. For example:
	`PARK       1`
	`PARK 1234567`
	The Park you are working with will provide the park acronym and a list of numbers for your use. Each row in the Excel template should have a unique catalog number. When a 7-digit number is used, there is always one space between the acronym and number, unless the park has provided you with a 5-letter acronym, in which case there is no space. The total width of the data, from the first letter to the last number, is *always* 12 spaces.

Accession #	Format: AAAA-99999. A standard NPS accession number includes a 4-letter park acronym, a hyphen, plus a number of up to 5 digits, padded with zeros and spaced so the last digit is in the 10th character space. For example:
	`PARK-00001`
	`PARK-12345`
	The Park you are working with will provide the park acronym and one or more accession numbers for your use. Accession numbers indicate groups of records, so they are not unique for each catalog record.

Classification: Class 1-4 for Geology, or Class 1, Kingdom, Phylum/Division, Class, Order, and Family for Biology and Paleontology	Refer to the ICMS User Manual Chapter 2. The Class 1 field is always BIOLOGY, GEOLOGY, or PALEONTOLOGY. Biology and Paleontology disciplines use the Integrated Taxonomic Information System (ITIS) taxonomy in the Kingdom, Phylum/Division, Class, Order, and Family fields. (See http://www.itis.gov/.) The Geology discipline uses Class 2-4 as defined in the NPS Museum Handbook Part II, Appendix H: Natural History and the Hierarchical Classification Outline (HCO). Request a copy of this appendix from the park curator. It is not available on the Internet.

Condition	Condition of the specimen. ICMS includes a list of valid entries. The terms "COM/GD" (for Complete/Good) or "COM/FR" (for Complete/Fair) are usually acceptable for recently collected specimens.
Scientific Name	Contains a set of subfields such as Genus, Species, Subspecies, etc. The Excel template uses separate columns for these subfields. Enter the data in the appropriate subfield.
Storage Unit	Either "EA" for individual specimens, or BAG, BOX, etc. as appropriate. When entering the number of specimens in the Item Count field, Storage Unit is *always* EA. When entering the quantity of specimens in the Quantity field, the Storage Unit is *never* EA.
Item Count or Quantity	Item Count if individual specimens, or Quantity if in bags, boxes, etc. Enter only an Item Count or a Quantity, *never* both.
Latitude/Longitude	Contains a set of subfields for degrees, minutes and seconds of latitude and longitude. Enter the data in the appropriate subfield.
Township/Range/Section	Accepts a 5-character township, 6-character range, 3-character section, and 2-letter abbreviations for each quarter section: `T.12345 __R.ABC123 __Sec.123 __NE 1/4 __SW 1/4 __SE 1/4` Use the space-underscore-underscore delimiters as shown here to separate each subfield.
UTM Coordinates	Formatted to accept 2 digits, a slash, 6 digits, a slash, and 7 digits: "12/123456/1234567"

Common Mistakes Found In Excel Imports

1. Incorrect formatting of the Catalog number and/or Accession number fields. If the catalog number is incorrectly formatted, the imported records may not sort correctly. The most frequent formatting mistake for Catalog numbers is an incorrect number of spaces between the acronym and the number. The most common mistakes in Accession numbers are omitting the hyphen between the acronym and the number, and failing to pad the number with zeros.

2. Incorrect terms used in fields controlled by ICMS authority tables. For example, a condition of "Complete" rather than "COM/GD" or "COM/FR. Or an object status of "in storage" rather than "STORAGE". Review the acceptable authority terms for such fields in Chapter 2 of the ICMS User Manual. Using incorrect terms in your Excel file and importing them to ICMS will create additional work for you or the park curator to correct the data.

3. Column headers in Excel that don't match the field names in ICMS, either due to typos, or due to having extra columns in Excel that don't have a match in ICMS. When using the Excel templates, don't add additional columns and don't edit the column headers, and you will avoid this problem. You may delete empty columns to simplify the import to ICMS.

4. Changing from "Park" to "Unit." In ANCS+, the Park field indicated the acronym of the park where the specimen was collected. In ICMS, that field was changed to "Unit" to conform to the new departmental standard. Likewise, the "Unit" field in ANCS+ for indicating the bed or flow for geology and paleontology specimens was changed to "Geo Unit" for ICMS. If importing data to ICMS from Excel files that used ANCS+ fields, edit the Excel file to change the Park field to Unit, and (if needed) the Unit field to Geo Unit.