Biodiversity Heritage Library

Minimum Imaging Requirements

BHL recommends following, in part, the DLF's "Benchmark for Faithful Digital Reproductions of Monographs and Serials" (available online at http://www.diglib.org/standards/bmarkfin.htm).

>**Bitonal:** 600 dpi, 1-bit or bitonal TIFF images

>**Grayscale:** 300 dpi, 8-bit grayscale uncompressed TIFF, or lossless compressed image (e.g. LZW, JPEG2000 [*.jp2]).

>**Color:** 300 dpi, 24-bit color uncompressed TIFF, or lossless compressed images (e.g. LZW, JPEG2000 [*.jp2]).

NOTE: the above specifications are the prefered ones. BHL will, however, accept lossy files. In the case of JPEG2000, files with a compression level of 85% are acceptable.

File Submission Guidelines

To submit scanned books for inclusion in the BHL portal, read this document, then contact Chris Freeland, BHL Technical Director, at chris.freeland@mobot.org.

The following files must be provided:

1. A **MARC or MARCXML document** from your library catalog for the digitized title, named with your local title identifier.
2. One **folder for every book** (item) scanned named with local library identifier.
3. Within each folder, **master images files** named with local library identifier + 4-digit sequence number in form "identifier_XXXX.ext"
4. If unable to provide a MARCXML record, BHL staff [TBD] will obtain an appropriate record

The preferred delivery method for files are external hard drives. Multiple DVDs, if properly labled, are an acceptable alternative. For external hard drives, it is the responsibility of the contributor to ship the drive to BHL, but BHL will pay to return the drive. Though BHL will take care of the drives, it does not take responsibility for the handling in the mail.

Example:

The Library of the Natural History Survey (LNHS) would like to submit their scans of Linnaeus' *Species Plantarum*. This 2 volume title has a local title identifier of b12069590 in the LNHS system. Volume 1 has a local library identifier of 31753000802824 and Volume 2 has a local library identifier of 31753000802832. The following files & folders would be submitted to BHL:

/B12069590.xml <u>View example</u>
/31753000802824/
    /31753000802824_0001.tif
    /31753000802824_0002.tif

    …
    /31753000802824_0566.tif
    /31753000802824_0567.tif
/31753000802832/
    /31753000802832_0001.tif
    /31753000802832_0002.tif

    …
    /31753000802832_0671.tif
    /31753000802832_0672.tif

BHL Metadata

Within BHL we record metadata at 3 levels of bibliographic granularity – Title, Item & Page – as well as metadata for the Creator(s) of the title. (SCP: Do we mean an authority record for the authors of the title?!)

BHL also required data on any intellectual property issues that may accrue to a title or an item. The most common intellectual property issue is when BHL has received permission from the publisher to digitize and make openly available content that might otherwise have copyright restrictions. For these, BHL requires a field in the metadata that indicates this permissions status.

BHL is currently in the process of standardizing these intellectual property statements. More information on this and where it should be indicated in the metatata will be forthcoming.

1. Title
A "Title" is described as the bibliographic authority for a single or multiple scanned Item(s).

Name	Obligation	Occurrence	Description	MARC Map
Title	Required	Once	The title of the title digitized. Either plain text or a concatenation of MARC 245 subfields.	245 $a and $
Abbreviation	Optional	Repeatable	Standard abbreviation of the title.	

Creator	Required	Repeatable	People or organizations responsible for creation of title.	100, 700
Description	Optional	Once	A description of the title.	
Publisher	Optional	Once	The person or organization responsible for publishing the original object. A concatenation of MARC 260.	260 $b
Start Date Published	Optional	Once	Year title began publication.	
End Date Published	Optional	Once	Year title ended publication.	
Local Library Identifier	Optional	Once	Unique identifier for title in scanning library's catalog. (Allows for later matching back to ILS)	
OCLC Number	Optional	Repeatable	OCLC Number(s) for original title.	035
ISSN	Optional	Repeatable	ISSN(s) for original title, used for serials/ journals.	
ISBN	Optional	Repeatable	ISBN(s) for original title, used for monographs.	
Call Number	Optional	Repeatable	Shelf location of book in scanning library.	050, 090

Subject	Optional	Repeatable	Subjects assigned to work, as indicated in subfields within MARC 650 or 710.	
Language	Optional	Repeatable	3 letter language code taken from bits 35-37 in MARC controlfield 008 or see list at http://www.loc.gov/standards/iso639-2/ISO-639-2_utf-8.txt	008/35-37
Date Created	Required	Once	Date digital object was created/scanned.	
Date Last Modified	Required	Once	Date digital object was last updated.	
Foreign Keys (TropicosID, IPNI PubID, TL2, BPH)	Optional	Repeatable	Identifiers for titles as recognized by popular indices.	

2. Item

An "Item" is described as the physical bound object scanned within a Title.

Name	Obligation	Occurrence	Description
Barcode	Optional	Once	The barcode affixed to the physical object scanned. Note: A library may have more than one copy of an item and this is where the correct copy is identified
Sequence	Required	Once	If a multivolume monograph or serial, the sort order for this item relative to the other objects

			scanned in this title.
Local Library Identifier	Required	Once	Unique identifier for item scanned, from scanning library catalogue. Note: Use same as local library identifier if this information is not easily accessible
Start Volume	Required: Serials Optional: Monographs	Once	Beginning volume number of bound object.
End Volume	Optional	Once	Ending volume number of bound object.
Start Date	Required: Serials Optional: monographs	Once	Beginning year of bound object.
End Date	Optional	Once	Ending year of bound object.
Language	Optional	Repeatable	3 letter language code, if different from Language of associated Title.
Scanning Institution	Required	Once	Institution responsible for scanning.
Scanning Contributor	Required	Repeatable	Institution(s) assisting with scanning.
Scanning Sponsor	Optional	Repeatable	Institution sponsoring scanning.
Date Created	Required	Once	Date item scanned.

			Date item modified.
Date Last Modified	Required	Once	

3. Page
A "Page" is described as a single image file contained within a scanned Item.

Name	Obligation	Occurrence	Description
FileName	Required	Once	File name of associated image file page.
Sequence	Required	Once	Sort order for given page, relative to other pages in item.
Page number	Optional	Repeatable	Physical page number of scanned page.
Page Type	Optional	Repeatable	A description of the contents of a page. **One of:** Appendix Blank Cover Illustration Index Map Table of Contents Text Title Page
Year	Optional	Once	Year page was published.
Volume	Optional	Once	Volume in which page was published.

			Description of subdivision below Volume, if present in item.
IssuePrefix	Optional	Once	**One of:** Issue Part Number Heft.
Issue	Optional	Once	Numeral in which page was published.
Date Created	Required	Once	Date page scanned.
Date Last Modified	Required	Once	Date page modified.

4. Creator

A "Creator" is defined as a person or company responsible for the creation of the Title.

Name	Obligation	Occurrence	Description
Name	Required	Once	Name of person or organization responsible for creation of title. Last Name, First Name.
Role	Required	Repeatable	**One of:** Author Publisher Illustrator Added Author
DOB	Optional	Once	Date of Birth
DOD	Optional	Once	Date of Death

Biography	Optional	Once	Free text biography of creator.