

Eidgenössisches Departement des Innern EDI Bundesamt für Kultur BAK Schweizerische Nationalbibliothek NB

Digitization guidelines

July 2014

(version - 2017)

Abkürzungen

AIP	Archival Information Package
CDN	Centre Dürrenmatt Neuchâtel
GC	General collection
FOC	Swiss Federal Office of Culture
BBL	Bundesamt für Bauten und Logistik
DG	Digitization guidelines
EAER	Federal Department of Economic Affairs Education and Research
FN	Fonoteca nazionale svizzera (Swiss National Sound Archives)
FoRe	Photography and Reprography Service
GS	Prints & Drawings (Graphische Sammlung)
IASA	International Association of Sound and Audiovisual Archives
KoRes	Preservation & Conservation (Konservierung und Restaurierung)
KKSP	Swiss Poster Collection (Kollektivkatalog Schweizer Plakatsammlung)
MIKO	Coordination of Swiss newspaper microforms
NL	Swiss National Library
NBibG	Federal Law on the National Library (Bundesgesetz über die Schweizerische Nationalbibliothek)
OAIS	Open Archival Information System
SLA	Swiss Literary Archives

Inhalt

1	Goal of the digitization guidelines	5
2	Why digitize?	5
3	For whom?	5
4	What should be digitized?	5
5	Legal questions	6
6	How to digitize (GC, SLA, GS and CDN)?	7
6.1 6.2 6.3 6.4 6.5	Management of digitization projects	7 8 8
7	How to digitize (FN)?	9
7.1 7.2 7.3 7.4 7.5	Organization Standards and formats: Test procedures and quality control: Conditioning the analogue originals Digitizing for third parties	9 9 9
8	Preservation of digital files	9
9	Cataloguing	10
10	Partnerships	10
11	Financing	10
12	Access to the digitized collections	11
13	The NL's organizational units and their tasks	12
13.1 13.2 13.3 13.4 13.5 13.6 13.7 13.8 13.10 13.11 13.12 13.13 13.14 13.15 13.16	All the NL's organizational units and staff Digitization Swiss National Sound Archives User Services Section Senior management Project office Copyright International Cooperation Information Service Preservation and Conservation Lending Stacks management Photography and Reprography Cataloguing Serials ICT applications of NL	12 12 12 12 12 12 12 13 13 13 13
13.17	Prints and Drawings Digital	13
13.18	Swiss Literary Archives	13

13.19	Centre Dürrenmatt Neuchâtel	14
13.20	Marketing and Communication	14
13.21	ICT Applications of FOC	14
13.22	Innovation & Information Management	14
14	Validity and revision of the DG	14

1 Goal of the digitization guidelines

The digitization guidelines (DG) define the principles and activities of the Swiss National Library (NL) in the field of digitization. They are valid for the General Collection, the collections of the Prints & Drawings Collection, the Special Collections, the Swiss Literary Archives, the Centre Dürrenmatt Neuchâtel, and the collections of the Swiss National Sound Archive.

2 Why digitize?

The NL digitizes its collections to make them accessible online. It thus fulfills its legal mandate "to make available information printed or stored on other information carriers which have a reference to Switzerland [...]" and to allow the public "to have a user-friendly access to its collections"

By opening up these collections to the widest possible audience, the NL encourages access to the information contained within them. It provides cost free online access to public domain documents as well as to copyrighted publications for which it has obtained the right to do so from authors or publishers. It encourages the further dissemination and re-use of its public domain documents.

The NL facilitates and simplifies research on Switzerland by cataloguing and providing optical character recognition for its digitized collections.

The NL protects documents that are fragile or threatened, by limiting use of the physical objects as soon as a digitized version is available online.

By digitizing sound documents, the NL makes it possible to preserve the content when the original data carrier is made of unstable material. Digitization is a core business of the FN and is primarily used to preserve information (while preserving the original carrier). In principle, the FN aims to digitize all its holdings. As it is not possible to borrow originals from the FN's collection, this allows users to access nonetheless the contents. They may also request that documents be digitized.

Through these digitization activities, the NL builds up its competence in a field that has become central to libraries and archives.

3 For whom?

The potential users of digitized material from the NL's collections are those for whom our collection is important: i.e. students, experts and researchers from all fields, but above all the Swiss population, and in addition, the communities who make heavy use of digital material (such as editors of Wikipedia or representatives of the digital humanities).

4 What should be digitized?

The NL digitizes primarily Helvetica from its collections. To fill gaps in its collection, it also digitizes Helvetica from other institutions.

The NL digitizes documents, which can be made freely accessible on the Internet. This does not apply to the FN, which digitizes its collection for preservation purposes, irrespective of the legal situation, and agrees on conditions of use with the competent collecting society.

The NL also digitizes documents which are in demand but whose format or state of conservative strongly restrict or prevent a physical consultation. If such documents are still protected by copyright, they may be consulted in the NL's reading rooms, but not online.

The NL digitizes newspapers, magazines, images, archival or sound documents. Where appropriate and possible, complete collections are digitized. Monographs are digitized at users' requests or selected by topic.

¹ NBibG, Art. 2 Abs. 1

² NBibG, Art. 5

In order to select the collections to be digitized or to confirm the selection made, the NL receives input from current or potential, individual or institutional users. It also looks for private or public partnerships to digitize copyright-protected collections or to share the tasks associated with such projects. Partnership projects have priority over internal projects. The FN prioritizes its own projects according to the state of conservation of its collection and user demand.

The following documents may be digitized:

- 1. Press: highly needed by the public and generally used extensively; Digitization brings great added value as it allows access to content that would not be possible with only the metadata of the catalogue alone; the NL's newspaper collection is exceptional since it contains mostly complete runs;
- 2. Periodicals and magazines: needed by specialists and researchers; digitization brings the same added value as for the press;
- 3. Graphic materials from the collections of the Prints & Drawings Department, if they are rights' free or if the rights to allow access can be obtained. Needed by the general public, researchers and communities such as Wikipedia, digital humanities;
- 4. Collections or parts of collections held in the SLA whose legal status allows them to be made available. These might be manuscripts, typescripts and the documentation of the genesis of a work from a draft to its finished form, drawings, collages and photographs, correspondence. They are of great interest for philological research;
- 5. Sound documents from FN to ensure the the long-term preservation of Switzerland's sound;
- 6. That part of Dürrenmatt's pictorial work held in the CDN and to which the federal government holds the rights.

Project proposals come from the User Services section, the Management Board, other sections and services in the NL, or from people and institutions external to the NL. The latter are given priority as long as they are in line with the NL's main focus i.e. documents on personalities and places from Switzerland as well as on events which are particularly important for the country. The FN, which, as mentioned above, digitizes for preservation purposes, strives for completeness in digitizing its collections.

For financial and capacity reasons, it is not very realistic to envisage the rapid digitization of all those parts of the collection that could legally be made available on line. Therefore, the NL give priority to the digitization of the areas of the collection which are interesting for core user groups.

For its part, the NL observes the following criteria when selecting parts of the collections for digitization (criteria are not ranked by priority):

- 1. Collections that correspond to the areas defined by the NL (personalities and places from Switzerland as well as events which are particularly important for Switzerland);
- 2. For sound documents, the increased risk of deterioration of the carrier and technical obsolescence:
- 3. Measures and projects to showcase the collection, for outreach, such as exhibitions, events, publications and online presentations;
- 4. Suggestions from external partners and employees;
- 5. Information from usage statistics.

Workload and costs are taken into account when determining a project's feasibility,

Once digitization around a particular topic is completed, new documents on the same theme may be added subsequently.

5 Legal questions

The NL respects copyright and personality rights in its digitization projects.

Documents published at least 110 years ago may be digitized and published without prior checks. In the case of serial publications, the publication year of the last published edition is decisive.

The NL systematically monitors the death dates of authors of more recent works and completes their standard data records with this data. If this information cannot be determined even after an in-depth search, a report on the measures taken will be prepared and submitted to senior management. It is up

to senior management to assess whether the orphan works identified in this procedure may be digitized.

The FN digitizes for preservation purposes and provides access the digital files only on protected workstations. The question of rights in providing access to digital material is discussed in more detail in section 12.

When digitizing portraits, the NB collects the consent of the depicted persons before the picture is put online. Exception are made for well-known public personalities (politicians, sportsmen, artists, etc.) who have been photographed during the exercise of their public activities.

6 How to digitize (GC, SLA, GS and CDN)?

6.1 Management of digitization projects

All digitization projects concerning the printed collections, image documents, original manuscripts and typescripts are handled and supervised by the digitization service, in order to guarantee optimal coordination, quality and implementation.

With the exception of monographs digitized upon users' requests, the digitization projects are managed according to the rules of the Federal Government's project management method, HERMES 5. A project leaflet explaining the procedures of this method and a template is available in the NL's electronic business management system (GEVER). Before work begins, the project must be approved by the NL's Management Board.

6.2 Internal and external work

Depending on the type and amount of documents to be digitized, the work is carried out by the NL's own service or by external service providers. The following criteria are taken into account in this decision:

- · Number of documents or pages;
- The state of preservation and fragility of the documents;;
- FoRe's capacity, depending on the project's urgency;
- Simplification of work processes;
- The expected quality of the end product;
- The value and security of the documents.

Three different approaches are possible:

- 1. FoRE carries out the work;
- 2. The documents are transported to an external service provider and the work is carried out on its premises;
- 3. The documents remain in the NL, the work is carried out by an external service provider on the premises and with FoRe's technical infrastructure.

When contracts are awarded to external service providers, the rules of the procurement procedure of the BBL apply³. As a rule, one of the following three cases occurs (costs are always estimated on the basis of the number of pages or documents):

- If the project costs do not exceed CHF 50,000, the order can be awarded directly to a company;
- If the project costs are between CHF 50'001 and CHF 230'000 excluding VAT, a call for tender
 must be carried out (regulation of the EAER on the adjustment of public procurement thresholds
 for the years 2016 and 2017, dated 23 November 2015, updated 1 January 2016);
- If the project costs exceed CHF 230,000, a tender must be carried out by means of an open procedure in accordance with public procurement rules.

³ Beschaffungsverfahren des BBL, https://www.admin.ch/opc/de/classified-compilation/20120667/index.html

The offers submitted will be checked by at least two people and the selection will be submitted to the Head of User Services for approval. If necessary, this will be confirmed by the Director. In case of doubt, the evaluating team may consult the FOC's legal service.

6.3 Standards and formats

The standards applied depend on the nature of the document, and are as follows:

- Texts and illustrated texts: 300 dpi (1: 1 scale), grayscale or colour (RGB 8 bit) depending on the
 original. The end product is an uncompressed TIFF file (a compressed version can be created for
 online publication). In certain cases, a PDF / A format is also selected for the final product (created
 from a predefined master format (TIFF or JPEG), without compression or with compression defined by the NL), in particular for quantity reasons (e.g. newspapers)
- Images (photographic prints, postcards, printed graphics, posters, negatives, slides etc.): colour (RGB 8 bit); the colour profile, palette and scale are digitized with the document for the master. The end product is an uncompressed TIFF file. In certain cases (for example with black and white negatives): Grayscale 16 bit. On the Internet, a JPEG image without a colour palette and scale is usually published. In certain exceptional cases other formats are possible. Derivatives are made from the master in formats depending on their intended use.

Optical character recognition is carried out for all documents containing text.

6.4 Tests and quality control

When an external service provider carries out the digitization, test data are generated by the contractor based on the above specifications. The project will only be started once the NL has accepted the quality of the test data. Thereafter, 10% of the supplied files are checked by the NL. The quality of the delivered files must correspond to that of the test data approved by the NL. The accepted error rate is 1% and is determined by contract. If this error rate is reached before 10% of the delivery has been inspected, the data is returned to the service provider for correction.

6.5 Handling the original documents

Documents digitized out-of-house

The staff responsible for the collections or professional external restorers check the state of the documents during the preparation for digitization. They describe any problems they have identified in a delivery list and make contact with KoRes or remove the document from the project if its condition is too fragile. After completion of the work, a further check is carried out to determine any new damage that may have occurred.

The decision to consult external restorers or not is made at the beginning of the project and depends on the type of document to be digitized.

If the digitization is to be carried out on the NL's premises, the KoRes service gives the external service provider an introduction to handling the documents to be digitized.

Documents digitized in-house

Those responsible for the collections check the state of the documents in preparation for digitization. They describe any shortcomings they have identified in a delivery list, and contact KoRes or remove the document from the project if the damage is too serious. The FoRe service is then responsible for the documents, while the KoRes service is still available for assistance.

The in-house and out-of-house delivery lists are made available to KoRes after completion of the project.

7 How to digitize (FN)?

7.1 Organization

All work is carried out in-house.

Digitizing the institution's collections

The FN's holdings are digitized primarily for conservation purposes. Another purpose of digitization is for use, since no material may be borrowed. Digitization is carried out as part of the standard workflow. It is based on two prioritization criteria:

- 1. Physical decay and technical obsolescence;
- 2. User needs / requests.

Digitizing third-party collections

As a competence centre for sound recordings, the FN also digitizes third parties' collections on request. This is a fee-paying service. Here, too, preservation is the main purpose of digitization.

7.2 Standards and formats

- 1. Linear WAV files (Pulse-Code-Modulation-Procedure (PCM)), in a resolution of 96 kHz / 24 Bit, are created as master files from analogue originals. The FN follows the IASA TC-04 guidelines;
- 2. Digital recordings are accepted in the format and resolution in which they arrive in the FN. These are copied without being processed or copied to a standard format;
- 3. Derivatives (compressed audio files in the MP3 format, 128 kbps, CBR, 44.1 kHz) are created from all formats as user copies.

In addition, technical restoration can be carried out if necessary. An additional copy is created, which is then restored and filed in the archive. A compressed usage copy is created from the restored version

7.3 Test procedures and quality control:

The entire digitization chain is systematically tested by automated tools developed by the FN. This results in an XML file with technical metadata. This allows the FN's technicians to detect faults and to check them directly in the digitized version and determine the problem. The XML is stored in the AIP with the documents' files.

7.4 Conditioning the analogue originals

- The physical original is kept and conditioned for long-term preservation;
- Conditioning includes cleaning, rewinding, re-packaging and, if necessary, mechanical repairs;
- Conditioning also ensures the best possible preparation for digitization.

7.5 Digitizing for third parties

As far as possible, the FN applies the same standards to digitize items from third parties as it does for its own digitization work. Exceptions are discussed with the partners.

8 Preservation of digital files

Master files for all types of documents are stored in the NL's long-term storage system according to defined quality standards. The quality of the master files can vary, since the standards are defined within each digitization project. The archiving guidelines for these master files are defined within the preservation planning framework. The aim of these guidelines is to keep all master files readable and reusable.

The NL makes no microform copies of these documents.

In two cases, concerning among other things, some newspaper and magazine digitization projects, the

data are not stored in the NL's long-term storage system:

- 1. When the collection has been digitized in partnership with another institution and that partner institution ensures long-term digital preservation of the data produced;
- 2. When the digitized collection is hosted and online at an institution that itself operates a long-term storage system and stores the documents safely there (e.g. e-periodica).

In certain cases, in order to ensure long-term access to the contents of the newspapers, a copy of the data on black-and-white microfilms can be produced, according to the rules for the protection of cultural property. This applies in particular to projects in which the NL's collections are used for digitization or in which institutional project partners want to carry out a MIKO project in cooperation with the NL.

This data carrier is preferred for two reasons: on the one hand because of its stability (a lifespan of 500 years) and on the other hand because of the amount of data in the digital versions of newspapers.

This does not apply to newspapers in which colour is particularly important, since in these cases the information loss would be too great.

The FN operates its own mass storage system (repository) using to the OAIS model.

9 Cataloguing

The digitized documents are catalogued in Helveticat, HelveticArchives, the KKSP or the FN-database. If the original document has not yet been catalogued, this is done at the same time.

The Bibliographic Access Section as well as the SLA, GS, FN and CDN are responsible for this part of projects. They define the principles and the applicable rules for cataloguing the documents. A supplement to the metadata with information on the legal status of the public domain documents is provided.

If the document is in the public domain, an image in the best possible resolution is linked to the records in HelveticArchives and the KKSP. If this is not the case and the legal status of the document allows, a thumbnail is shown for illustration purposes.

A small-format image of the title page or a representative page of the documents catalogued in the FN database and Helveticat is linked to the bibliographic records. The NL is aware that this is partly inconsistent⁴ with applicable copyright law. In the current legislative process, it therefore proactively advocates that such enrichment of the catalogue be made legal.

10 Partnerships

The NB favours partnership-based digitization projects. Partnerships allow tasks and costs to be shared as well as the use of the originals for digitization.

Partnerships are possible with institutions and / or private companies. They are governed by agreements defining the contributions of the various partners. Four types of contribution are possible and are not mutually exclusive:

- · Consent of the copyright owner for digitization and online publication;
- Co-financing a project;
- Providing physical or digital collections;
- Providing human resources.

11 Financing

The NL finances internal and partnership projects from its budget.

It cannot receive direct financial support from sponsors or partners, but assists its partners in their fundraising efforts.

⁴ This enrichment of the catalogue is legal if the FN has concluded the appropriate licenses with the collecting societies

As a partner, the NL contributes to a project with services and / or financially.

The NL does not subsidize any digitization projects.

Public-private partnerships

If a project is implemented in partnership with a public institution and a private company, the NL's financial contribution is usually 20%. This contribution may rise to 50% if the private partner does not co-finance the project,

If the NL is launching a project and is dependent on a public or private partnership to obtain the rights to implement it, it may also ensure the financing on its own.

Public partnership

If a project is implemented in partnership with a public institution, the NL's financial contribution is usually 20%. If the collection meets the NL's priorities, a contribution of up to 50% is possible. If a partnership involves several projects, the NL's individual contributions may also be higher, provided they are offset by the other projects.

12 Access to the digitized collections

Different platforms provide access to the digitized collections:

- e-Helvetica (<u>www.e-helvetica.nb.admin.ch</u>) for monographies;
- HelveticArchives (www.helveticarchives.ch) for archival material and image documents;
- e-periodica (<u>www.e-periodica.ch</u>) for journals and magazines;
- Schweizer Presse Online (www.schweizerpressearchiv.ch) for some newspapers;
- FN-Base (www.fonoteca.ch/catalog/) for sound material;
- various institutional and private platforms for some of the newspapers, as well as for specific projects of the SLA.

The NL encourages partners to provide online access to newspapers on Swiss Press Online in order to limit the proliferation of different sites for these types of documents.

In order to make it as easy as possible to find the collections on the Internet, the NL ensures that their metadata are accessible to search engines.

Helveticat provides central access to the General Collection's metadata.

The NL aims to publish the digital versions of public domain or open licensed documents on popular platforms (e.g. Wikimedia Commons).

It supports the distribution of its collections on other platforms (e.g., e-manuscripta).

The NL's policy of free access also encourages the reuse of its digitized collections.

Documents in the FN are divided into four categories for access:

Level 1. Rights-free sound documents are made freely available on the Internet;

Level 2. Documents which are not yet rights-free and for which an agreement could be reached with the rights holders are made available on protected workstations within the FN network;

Level 3. Documents which can be made available to individual users with the permission of the authors or producers. A license for this is obtained from case to case;

4. Documents to which there is no access at all..

13 The NL's organizational units and their tasks

13.1 All the NL's organizational units and staff

Suggest digitization projects to the Digitization Service.

13.2 Digitization Service

- Defines and manages the projects, taking into account the elements listed in chapter 4 and the effects on the NL's other services, and submits projects to senior management for its approval;
- Prepare the documents held in the General Collection;
- · Carries out / manages the projects;
- Carries out scanning (e.g., missing pages, specific documents within a project);
- Promotes digitized collections.

13.3 Swiss National Sound Archives

- Determines the collections to be digitized;
- Digitizes the collections within the structure of daily business;
- Carries out conservation and restoration work;
- Provides access to digitized collections (cataloguing, thematic collections, etc.).

13.4 User Services Section

- The Head of the Section is responsible for financial planning and control. This applies to all projects except the FN (day-to-day business);
- Checks the project proposals and forwards them to senior management for approval.

13.5 Senior Management

• Approves the Digitization Service's project proposals

13.6 Project Office

Includes the new projects in the NL's project portfolio.

13.7 Copyright

Manages questions about copyright and personality rights

13.8 International Cooperation

- Informs the Digitization Service of ongoing or planned international projects;
- Establishes contacts to disseminate the NL's digital collections

13.9 Information Service

Carries out collection searches for the Digitization Service if required.

13.10 Preservation and Conservation

- Assesses the overall feasibility of the projects, based on the types of documents selected;;
- Instructs external service providers mandated to digitize collections on the NL's premises how to handle documents;
- Advises the FoRe service on digitization project that are carried out on site;
- Approves the choice made by external service providers or by the Digitization Service of a conser-

vator responsible for checking the condition of the collections

13.11 Lending

Handles the Digitization Service's loan requests.

13.12 Stacks management

Retrieves documents held in the General Collection from the stacks.

13.13 Photography and Reprography

- Scans documents defined for processing by the in-house team;
- Instructs external service providers mandated to digitize collections on-site on the use of NL materials; checks part of their work;
- Advises the digitalization service on technical matters.

13.14 Cataloguing

- · Defines the codes for identifying each project;
- Updates the records of the original documents in Helveticat;
- · Creates records for the digitized documents in Helveticat;
- Creates the required XML files

13.15 Serials

- Catalogues periodicals digitized by the NL or recognized institutions;
- Helps the Digitization Service to create inventories of periodicals as part of the preparation for a digitization project.

13.16 ICT applications of NL

- Integrates documents prepared by the Digitization Service for e-Helvetica and KKPS;
- Defines archiving formats in cooperation with the Digitization Service;
- Archives the master version of the digitized documents in the NL's long-term storage system. of the NB.

13.17 Prints and Drawings Digital

- Catalogues the documents selected for digitization;
- Establishes detailed inventories in preparation for digitization;
- Retrieves the physical documents from the stacks, prepares them for digitization, and returns them to the stacks after digitization;
- Links the digital image to the bibliographic records in HelveticArchives.

13.18 Swiss Literary Archives

- Catalogues and prepares the documents selected for digitization;
- Establishes detailed inventories in preparation for digitization;
- Prepares the documents for digitization. Checks metadata and carries out quality control on the digital images produced for HelveticArchive;
- Links the digital image to the bibliographic records in HelveticArchives.

13.19 Centre Dürrenmatt Neuchâtel

- Catalogues the documents selected for digitization;
- Establishes detailed inventories in preparation for digitization;
- Retrieves the physical documents, prepares them for digitization, and returns them to the stacks after digitization;
- Links the digital image to the bibliographic records in HelveticArchives

13.20 Marketing and Communication

- Checks the drafts of texts intended for the public;
- In collaboration with the Digitization Service, ensures the promotion of online collections.

13.21 ICT Applications of FOC

- Provides Web addresses;
- Updates the project descriptions and online collections websites

13.22 Innovation & Information Management

- Keeps colleagues informed about changes in user behaviour and assesses their impact on the NL's digitization activities.
- Proposes innovative solutions in the field of access to digitized collections.

14 Validity and revision of the DG

The DG entered into force on 1 August 2014.

It is revised every two years, the first revision took place in March 2017 and will be repeated no later than 2019.

The DG replaces the digitization strategy 2009-2015 of 30 July 2009.