

M-Tool user's manual

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Purpose

M-Tool is designed for librarians, archivists and other specialists preparing descriptions of written historical monuments - manuscripts, old printed books, papers and maps.

M-Tool enables easy authoring of digital documents describing an original work. It offers effective tools for linking descriptive information to existing or newly created digital images saved by many standard methods.

Documents prepared with **M-Tool** are created in XML format, applying the European **MASTER [1]** project DTD, satisfying the technical criteria for import to **Manuscriptorium [3]**.

They can therefore be offered to the National Library of the Czech Republic for import to the **Manuscriptorium** Database.

An XML document created by **M-Tool** can form the basis for further editing and extension of the description at will by any other XML document editing tools conforming to the **MASTER** project; see also the chapter on [External editing](#).

Getting to know the programme

The simplest way for experts preparing descriptions of historical documents to familiarise themselves with the use of **M-Tool** is to read a correctly completed form.

Start up M-Tool and in the **Main** menu click the option **Load sample form**.

The bibliographical description form contains data for a sample document. Please note the method of completing all sections (Identification, Contents, Illumination, ..., Additional data: printed materials) and experiment with their modification.

Preparation and checking of the bibliographical description of the document

Complete the fields in the **Description** section, entering information relating to the current document. Then select the **Check and finalise document** section, where the accuracy of the description can be verified. From the pull-down **Check** menu, select **description** and click the **Check** button.

Checking of the compulsory information content proceeds automatically and the bibliographical description created is displayed as text.

If you are connected to the Internet, you can also check the accessibility of the images of the document (for further details see the chapter on [Attaching images](#) and [Checking accessibility of images](#)).

Technical note:

The same data can be displayed in „raw“ XML format via the option to check **XML document preview** in the **Check** drop-down menu.

Searching in the check window

Click in the window in which the check results are presented and press **[ctrl+F]**.
The window for searching on the given expression appears.

Attaching images

The information about a given document must include an index of the digital images of its pages accessible online on the Internet (via the HTTP protocol). So that this index does not have to be compiled „manually“, the programme automatically generates the required information from the data contained in the **Numbering** and **Files and links** sections.

Numbering section

Numbering system

Select Foliation / Pagination.

Language of description of numbered pages

The language of texts associated with the pagination.

Presence and numbers

All information concerning the presence of images of the binding of the volume and the number of pages/folia.

NB:

In the field „number, main part“, the notation of the last folio/page of the document is entered, not the actual quantity. The true number is calculated by accounting for missing and exceptionally numbered pages/folia.

Exceptional numbering

Notation of sheets over and above the natural numerical series.

Format of the record:

X1(n1), X2(n2), where

- X is the number of the sheet in the main part,
- (n) is the quantity of exceptionally numbered (extra) sheets in brackets.

Individual exceptions are separated by a comma.

Missing sheets/folia

Are recorded individually, separated by a comma, irrespective of their sequence.

Files and links section

For purposes of M-Tool it is assumed that the images representing the described document are already installed on the internet and that each image is accessible at a unique URL via the http protocol. A list of these unique addresses must be attached to the document description.

The function of the ***Files and links*** section is to generate these addresses automatically.

Recommendation:

We recommend that you enter information in collaboration with the IT colleague responsible for the attachment of your images. Acquaint yourself with the available systems for saving images offered by **M-Tool** and compare them with your own method. Select the option which describes your system.

A wide range of methods for saving images is offered. If your method of saving images is nevertheless incompatible with the **M-Tool** options, contact the **Manuscriptorium** manager or consider modifying your approach.

Provision is made for up to five different quality levels per image.

In this section, the provision of information on access to the **basic level**, usually the highest quality, is obligatory.

Access to a further quality level is expected - **gallery**, though this is not compulsory. However, its availability renders the use of Manuscriptorium considerably faster and more effective, especially where the user's transfer speeds are low.

The provision of further quality levels is voluntary. We recommend the observance of a quality gradation sequence proceeding from highest to lowest (best quality first and lowest quality last).

Description of form fields:

URL Document root directory	A compulsory field, containing URL address of the top level document directory. In the sample document, for example, this is "http://www.memoria.cz/mtool/sample2". This value is used for all image quality levels entered.
Document identifier	A non-obligatory text field which may be used to create a file name. Its use is governed by the option field which immediately follows it in the form. The available options are: Not entered , Before prefix , After prefix , Before suffix , After suffix .

There follow five consecutive sections for the definition of names and paths to the respective image quality levels.

Each section contains:

Title	Obligatory; a quality identifier indicating the quality parameter to be offered to the user.
Sub-directory	Sub-directory containing images of a given quality, if the document is so structured.
Prefix	The text is positioned before the generated file name.
Suffix	The text is positioned after the generated file name.
Extension	The extension following a full stop (period) in the file name corresponds to the image format at the given quality level.
Option to replace an image file name with a number	This option leads to the replacement of names based on Manuscriptorium conventions by a simple numerical series corresponding to the following setting: <ul style="list-style-type: none">• From – initial value at which numbering starts• Step – the value added to each subsequent image• Number of places – the maximum number of places the numerical series may contain, to be completed with zeros as appropriate.

Checking accessibility of images

If the **Numbering** and **Files and links** sections have been correctly completed and if you are connected to the internet, you can check the accessibility of the images. Select the **Check and finalise document** section, select one of the options offered below in the drop-down **Check** menu and click the **Check** button.

In the **Check** drop-down menu the following checks are available:

- Only first images of all quality levels** Used for rapid checking of generated links to images. Appropriate first check. Images displayed at actual size.
- Gallery of images at lowest quality level** Used to check completeness of paths linking to images. Displays all image files at the lowest quality level stated - Gallery. Click an image to display the basic image in a new window.
- Presence of all images** Used as a final check. This process is usually time consuming; the speed depends on the computer used and the transfer speed of the internet connection. The images are displayed for the duration of the download only; because of intensive system demands they do not subsequently remain available for visual checking.

Checking can be interrupted in the window in which the check is displayed.

When the checking is completed a list of images found is presented.

Saving work

Final XML document

When the form has been completed the information must be saved in the form of a finalised XML document created in **M-Tool**.

You will save the contents of the form in XML format in the **Check and finalise document** section, where you will record in the uppermost field (next to the **generated**) option the location and name of the generated XML file and click **Save**. The XML document created is directly importable into **Manuscriptorium**. It can also be further processed by any XML editing tools, for conversion to other purposes and importing to other systems.

Saving M-Tool forms

You can save the content of the form in the **Main** menu by selecting **Save form**. This save, however, has a purely auxiliary function; it is intended mainly for temporary saving of a partially completed form. Data saved in this way is not available for further processing and cannot be used to import your data to other systems. It is intended only for re-opening an unfinished form in **M-Tool**.

Data fields in the form and their interpretation in XML

The following list shows all the fields provided in the form, with a brief description of the data to be entered. The method of incorporating content into the respective elements of **DTD Master+ [4]** in the structure of the final XML document is also indicated.

However, **M-Tool** users do not require a knowledge of XML unless it is intended to prepare extensive descriptions.

Sub-section Identification

Settlement	Names the city (or other place) where the document described is stored, not the institution – the latter is catered for under Institution.
Repository	Names the institution in which the document described is stored.
Shelfmark	Supplies the string of abbreviations and numbers, usually referred to as the call number, shelfmark, accession number, etc., that is used to identify the item.

```

- <manuscript>
- <msDescription>
  - <msIdentifier>
    <settlement>Settlement</settlement>
    <repository>Repository</repository>
    <idno>Shelf-number</idno>
  </msIdentifier>
  - <msHeading>
    <title>Main title</title>
    <author>Author</author>
  - <respStmt>
    <resp>printer</resp>
    <name type="place" role="printer">Place of printing</name>
    <name type="person" role="printer">Name of printer</name>
  </respStmt>

```

Main title	The title of the document - in the case of a collection of texts within a single document it is appropriate to give a collective title, e.g. Textus varii, Collection of Laws etc.
Author	Indicates the date of origin of the document. May be given as a precise date or as any time span
Date of edition	Indicates the date of origin of the document. May be given as a precise date or as any time span
Language of original	The language in which the document was written. More than one language may be mentioned.

Note Any other data the author of the document description considers appropriate.

```
- <msHeading>
  <title>Maint title</title>
  <author>Author</author>
- <respStmt>
  <resp>printer</resp>
  <name type="place" role="printer">Place of printing</name>
  <name type="person" role="printer">Name of printer</name>
</respStmt>
- <respStmt>
  <resp>publisher</resp>
  <name type="place" role="publisher">Place of publishing</name>
  <name type="person" role="publisher">Name of publisher</name>
</respStmt>
  <origDate>Date of edition</origDate>
  <textLang>Language of original</textLang>
  <note>Note</note>
</msHeading>
```

Sub-section Contents

Contents Enables a brief, summarised description of the content of the document to be given (e.g. A collection of legal texts relating to the field of South German municipal law).

```
- <msContents>
- <overview>
  <p>Content (1st paragraph)</p>
  <p>Content (2nd paragraph)</p>
  <p>Content (3rd paragraph)</p>
</overview>
<msItem />
</msContents>
```

Sub-section Illumination

Illumination

Enables any information to be given about the decoration of a manuscript; appropriate also for engravings in printed books. Either a brief descriptive summary or a description referring to individual folia of a manuscript.

```
- <physDesc>
+ <support>
+ <extent>
+ <musicNotation>
- <decoration>
  - <decoNote>
    <p>Illumination (1st paragraph)</p>
    <p>Illumination (2nd paragraph)</p>
    <p>Illumination (3rd paragraph)</p>
  </decoNote>
</decoration>
+ <bindingDesc>
</physDesc>
```

Sub-section Notation

Notation

A field for data on any musical notation the document may contain.

```
- <physDesc>
+ <support>
+ <extent>
- <musicNotation>
  <p>Notation (1st paragraph)</p>
  <p>Notation (2nd paragraph)</p>
  <p>Notation (3rd paragraph)</p>
</musicNotation>
+ <decoration>
+ <bindingDesc>
</physDesc>
```

Sub-section Binding - Material - Length - Dimensions

Binding

Describes the material on which the document is written (usually paper, parchment or a combination of both).

Material

Describes the material on which the document is written (usually paper, parchment or a combination of both).

Extent

Records the number of pages (or folia) in the document, including any prefaces and end-papers. It is also appropriate to mention any errors in the listing of folia (or pagination) – missing pages or duplicated folio numbering.

The dimensions of individual leaves may be given (if they are

Dimensions identical or similar) or any range of maximum/minimum values.

```

- <physDesc>
- <support>
  <p>Material</p>
</support>
- <extent>
  Extent
  <dimensions>Dimensions</dimensions>
</extent>
+ <musicNotation>
+ <decoration>
- <bindingDesc>
  - <binding>
    <p>Binding (1st paragraph)</p>
    <p>Binding (2nd paragraph)</p>
    <p>Binding (3rd paragraph)</p>
  </binding>
</bindingDesc>
</physDesc>

```

Sub-section Literature and References

Literature

Publications relating to the document described may be noted (editions, catalogues, monographs devoted to specific works, journal articles etc.)

Reference

This field can provide references to additional information about the document.

```

- <additional>
- <listBibl>
  <bibl>Literature (1st paragraph)</bibl>
  <bibl>Literature (2nd paragraph)</bibl>
  <bibl>Literature (3rd paragraph)</bibl>
</listBibl>
- <adminInfo>
- <recordHist>
  - <source>
    <p>Reference</p>
  </source>
</recordHist>
</adminInfo>
</additional>

```

Extension: Printed Materials Sub-section

Place of printing Place of printing

Name of printer Name of printer

Place of publishing Place of publication

Name of publisher Name of publisher

```
- <msHeading>
  <title>Maint title</title>
  <author>Author</author>
- <respStmt>
  <resp>printer</resp>
  <name type="place" role="printer">Place of printing</name>
  <name type="person" role="printer">Name of printer</name>
</respStmt>
- <respStmt>
  <resp>publisher</resp>
  <name type="place" role="publisher">Place of publishing</name>
  <name type="person" role="publisher">Name of publisher</name>
</respStmt>
  <origDate>Date of edition</origDate>
  <textLang>Language of original</textLang>
  <note>Note</note>
</msHeading>
```

Structure of paragraphs in the Contents, Illumination, Notation, Binding and References sections

In the above mentioned sections the textual content can be divided into paragraphs. Information on paragraph breaks in the XML file is entered by annotating each paragraph with separate tags: `<p>Paragraph text</p>`.

Technical note:

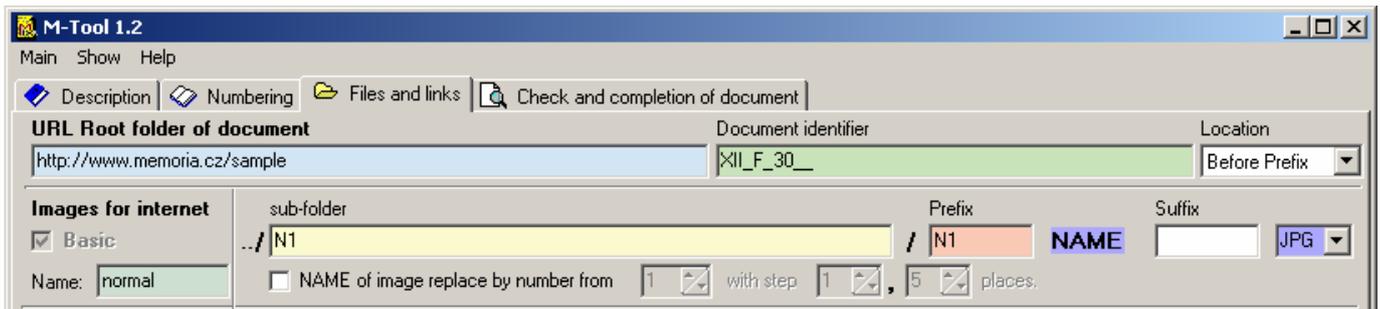
The end of a paragraph is marked by a hard line break, i.e. by pressing the [Enter] key - the hidden characters CR+LF (ASCII value #13#10). This requirement should also be borne in mind when text is copied via the clipboard.

Interpretation of image lists in XML

The content of this section is determined in the XML document by the content of the `<pgImage>` tag, found in the `<page>` tag – a description of the individual pages of the document.

The creation of a link to individual images is illustrated by the following example:

```
<pgImage id="IDFC" href="http://www.memoria.cz/sample/N1/XII_F_30__N1000FC.JPG" quality="normal" />
```



```
<pgImage id="IDFC" href="http://www.memoria.cz/sample/N1/XII_F_30__N1000FC.JPG" quality="normal" />
```

Alternatives to the `pgImage` tag:

```
<pgImage id="IDFC" href="http://www.... /SIGNATURA/N1 /000FC.JPG" quality="normal" />
<pgImage id="IDFC" href="http://www.... /SIGNATURA/N1 /0001.JPG" quality="normal" />
<pgImage id="IDFC" href="http://www.... /SIGNATURA/N10001.JPG" quality="normal" />
```

External editing

M-Tool does not enable working with freely structured documents and it is restricted to character sets and code pages of the system installed on your PC. For further editing, it may therefore be advantageous to use a specialised XML editor.

An externally amended XML document can be imported into **M-Tool** later and the links to images checked subsequently only as long as the editing has not affected its formal integrity. External editing must observe the following rules:

- the XML structure must conform to **DTD Master+ [4]**
- the guidelines set out in the **Manuscriptorium Compatible** document **[3]**
- all diacritics and special characters must be included in the UTF-8 code page (see the heading of the output file)

Imported XML files cannot be edited in **M-Tool**.

If you wish to edit previously prepared data subsequently in **M-Tool**, save the content of tables in **Main menu, Save form**.

Character sets and language versions

The application supports only the input of characters corresponding to the language version of the operating system. All characters contained in the code page corresponding to the operating system (OS) can be used in the application. Only one of the available OS code pages applies. These are, for example:

CP 1250-MS Windows Latin 2 (Czech, Hungarian, Polish etc.)
CP 1251-MS Windows Cyrillic (Russian, Bulgarian, Serbian etc.)
CP 1252-MS Windows Latin 1 (German, French, Spanish etc.)
CP 1257-MS Windows Baltic (Estonian, Lithuanian, Latvian etc.) ...and others

If any of the characters supported by the code page are not shown on your keyboard, you can enter them with the aid of the Keyboard application in your operating system's accessories package.

M-Tool does not enable the use of UNICODE characters.
The XML output file is converted to the UTF-8 (UNICODE) character set.

Recommended computer configuration

The recommended configuration for the application is:

- Windows XP Professional operating system
- HW Pentium 4 1500MHz
- 512 RAM

Recommended literature and links

- [1] MASTER: <http://www.tei-c.org.uk/Master/Reference/>
- [2] Manuscriptorium: <http://www.manuscriptorium.com>
- [3] Manuscriptorium compatibility:
http://www.memoria.cz/docs/manuscriptorium_basics_and_compatibility_CZE.pdf
- [4] MASTER+: <http://digit.nkp.cz/MMSB/1.1/msankaipXSDdocumentation.html>

Keyboard shortcuts

- [Ctrl+S]** *Save form* – saves the current edited form
[Ctrl+Del] *Erase form* – erases the form
[Ctrl+O] *Open form* – opens a saved form
[Ctrl+F12] *Save XML document* – saves the XML file, according to the path in the **Checking** section.
[Alt+F4] *Close* – closes the M-Tool application

Sections

- [F4]** *Content*
[F5] *Illumination*
[F6] *Notation*
[F7] *Binding Material Extent Dimensions*
[F8] *Literature Links*
[F9] *Place of printing, Name of printer, Place of publication, Name of publisher*