M-Tool – user's manual

Version 2.0 online

6th May 2009

About M-Tool

M-Tool is designated for librarians, archivists and other specialists, who describe written historical documents - manuscripts, early printed books, charters and maps.

M-Tool in an application designed for an easy creation of a digital document which represents the original. It offers efficient features which enable the connection of the descriptive information with the existing or newly created digital images saved in many usual ways.

The documents created by means of M-Tool have the form of XML while using TEI P5 ENRICH schema and they comply the technical conditions (not only) for the import to Manuscriptorium.

XML document created by the tool M-Tool can be the basis for further editing and free extension of the description by different other tools used for the editing of XML documents in accordance with the project TEI P5, see also the chapter External editing.

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Using the M-Tool application

The opening page of the M-Tool presents the list of last changes (which new functions were added, corrected or how had the functionality changed). Please pay attention to the list of changes as before the final release the updates may be rather frequent according to end-users feedback.

Also a basic brief menu is available.The system of menu is organized into lines. In the upper line there is the menu of the main selection, bellow there is the sub-menu corresponding to the chosen item from the main menu.
Each level of the menu is colored differently.

After starting the application, the basic menu offers only the items "**Document**"and "**Help**".

When choosing the item "**Help**" a new window is opened and displays this user's manual.

Basics of manipulating documents

When choosing the item "**Document**" in sub-menu we move further on to the usage of the whole tool. The Sub-menu offers the following choices: "**New...**" / "**Open...**" / "**Logout**":

- **New:** creates a new document and opens it for further editing in the M-Tool application. It is also possible to choose the type of the new document – the choices are "**Manuscript**" for the documents of the "Manuscript" type or "**Early Printed Book**" for the documents of the "Early Printed Book" type. For the confirmation of the chosen type and the final creation of the document press "**Create**", for the cancellation of the chosen options press "**Cancel**". In that case you get back to the M-Tool main page.

- **Open:** enables you to open an existing document.

  When choosing this item the user gets to the window "**Open existing document**" and is asked to choose the desired document - "**Choose a document to be uploaded**" (note: as the M-Tool application is an online application when opening the document it gets uploaded on the M-Tool server, where it is further being worked with; also when saving the document it is downloaded from the server (see furthermore in the manual).

  There is also the button "**Browse**" which enables the user to browse the folders on the disc in the standard file-open dialogue of the local operation system; therefore the needed XML file can be searched easily. When pressing "**Cancel**" the user gets back on the M-Tool main page (without opening the document). When pressing "**Open**" the upload of the document on the M-Tool server is confirmed and it is opened in the M-Tool application.

- **Logout:** logs the user out of the application and when closing the session all created information are deleted. Before the logout from the system it is therefore necessary to save the final or semi-finished document by means of the "**Save As..**". button (see further in the manual).

When a document is created or opened in the application, in the sub-menu of the item "**Document**" there appears the possibility "**Save As...**", which enables to save the document edited in the M-Tool application on a local hard disc of the user (note: saving the document means its downloading from the M-Tool server to the local hard disc). Furthermore there appear the items "**Description**", "**Structure**" and "**Preview**" in the main menu with their options in the corresponding sub-menus.

Directly bellow the section of menu there appears an informatory line in the upper part of the screen above the form. This line serves as an identification of the currently opened document (example of a displayed information: "**Document summary: early printed book file name: Zlatá bula.xml**")

Creating and editing bibliographic description (descriptive metadata)

The item of the main menu named "**Description**"offers 6 subgroups for the completion of the forms. These are: "**General / Identification / Intellectual Contents / Physical Description / History / Additional**".

Switching among them is possible by choosing from the sub-menu of the item "**Description**" in the main menu or directly by choice in the second line of the menu which shows the submenu of the currently chosen section. So, when the user clicks only on the item "**Description**" in the main menu, then the sub-menu in the second line reflects the change of the section and shows all options, which the item of the main menu "**Description**" contains.

When choosing a sub-menu from the Description menu the user can start to create/edit the bibliographical description itself. The content of the forms is logicaly structured into sets of related information. Each particular input field is provided with relevant labels or headings in order to enable easy navigation.

Additionaly there is an instant help available as the Hints feature. When an input field (selection box, text area etc.) is focused a related hint is diplayed by the field to illustrate the expected content of the entry. To cancel the hint it is possible to click either anywhere outside the editing line (including the text of the hint).

Some (very few) of the avalable information is mandatory. The system checks the existence of the most basic information only and it is the responsibility of the cataloguer how the available fields are used. There is no need to fill all available fields as the application filters unused fields (see the "Preview" sub-menu for information on description representation).

Note on available forms: in the beginning the M-Tool provides the end-users with two basic forms (for manuscripts and early printed books). As we are aware of the various cataloguing practices as well as of different properties of different documents in specific collections we plan to include additional fields – constrained or in the contrary extended – according to individual partners needs.

Some of the information can be repeated. The input fields of such repeatable sets of information are hidden and will pop-up upon request of the end-user when he/she presses the "Add new" link. The link is available in appropriate location.

When a repeatable set of information is created it is displayed in a dedicated summarizing table where also the "Edit" and "Remove" links are available performing the foretellable actions.

Important notice:
*Do not use your browser's native interface "**BACK** "button when working with the M-Tool application – to navigate throught the M-Tool features use the M-Tool interface only. By nit obeying this rule you expose yourself in the risk of possible losing of latest changes performed above the active form.*

Basics of manipulating documents structure (structural metadata)

The M-Tool application incorporates powerfull generator of structural metadata. Additionally the generated metadata can be further manually updated according to specific needs of a particular digital document.

While using the M-tool it is expected that the images files of the described document have already been placed on the internet in such a way, that every image can be accessible on its unique URL via the HTTP protocol (either directly or indirectly by means of a script).

When generating the information we recommend you to cooperate with the IT specialist, responsible for the location of your images. He/she will be able to indicate the basic information about location of the images and the way the URL should be generated.

The generator covers number of ways of how the images data are organised reflecting various aproach to digitisation (full/partial digitisation, one/two pages per image etc.), approaches to file naming, and page labeling etc. The shape of generated structural metadata can be affected by number of options in the"Generate Document Structure" sub-menu. These are described in a separated chapter below.

Unlike the previous M-Tool the current application generates a single set of image date. The information about other available qualities is a part of the information in Manuscriptorium import profile and the information on availability of additional image quality sets is derived during import of metadata. This helps to keep the M-Tool interface as simple as possible.

Note: In case the way your images are saved is not compatible to the options given by M-tool and manual update would be too time demanding (considering the extent of data available in your collections), contact the Manuscriptorium administrator.

Generating structure of a document (structural metadata)

Section "**Generate structural metadata**" serves for the generation of the structural metadata of the digital document. Here we provide the basic information, for further details see the Detailed Description of the form for generating structural metadata chapter).

The form is divided into several logic sections:

- Section "Numbering System" defines the way of numbering of the document in its original as well as in digital version.
- Section "Structure of the digital copy" reflects the existence and number of pages or folios of each part of a document.

- Section "Irregularities" specifies inconsistencies in the numbering of the document.
- Section "Way of digitization" defines the way of saving the pages of the document in terms of the number of pages / folios recorded in one image file (whether one image displays one page/ folio or two pages / folios together).
- Section "Filenames and URLs " defines the way of creation of the names of the files and the path to them.

The data already filled in the form remain preserved even while switching between the editing and preview mode; therefore it is possible to move back to corrections or changes of the entered input data. (This applies for the currently opened document; when the document is re-opened the form for generation of structural metadata is empty/in default state).

When the generating form is set up according to your documents properties it is necessary to press the "Generate structure of the Digital Copy" button in order to generate the structure.

Note: any existing structural metadata are permanently discarded when pressing the "Generate structure of the Digital Copy" button.

To continue with verifying and editing of the structure select the "**Edit Generated Structure**" sub-menu.

Verifying documents structure

Sub-menu "**Edit Generated Structure**" enables to check the structural metadata of the created document and if needed, also to edit or correct it manually. The check starts automaticaly after the dedicated page is opened. The check may be interrupted anytime by pressing the "Stop" button.

During the check the application lists all files, checks their accessibility and counts and reports possible errors.

Information displayed in the upper part of the check report is as follows:

- **Check status:** displays the information about the process or end of the check and the existence of mistakes
- **Invalid URLS count:** displays the number of chosen invalid URL addresses

The files are listed in a table with following structure:

- The column "**Status**" displays through the icons the current state of the given reference to each part of the document - "**X**" = error/image unavailable, "**V**" =image accessible; by clicking the V icon a preview of the image is displayed which may ease the navigation throught the document
- The column "**Label**" displays the page/folio pagination/dfoliation.
- The column "**Path relative to Base URL**" displays the particuar relative path to the root images of the digital document
- In the column "**Remove**" the items to be deleted can be marked
- The column "**Actions**" enables to perform actions above particular item in the list
- The column "**Note**" provides the users with important information related to particular item in the list (mostly identifies whether the item in the list was edited and the changes were/were not yet saved - "**changed (NOT saved yet)**" or "**marked for removing (NOT saved yet)**")

Any reported error can be either resolved by generating new metada or by a manual update. It is possible to manualy:

- update the label and/or relative path (by clicking on the "Edit" icon or by clicking the particular information directly the field "**Label**" and "**Path relative to Base URL**" is available for editing)
- remove unwanted itesms from the list checking the on the "**Remove**" icon
- add new items by clicking the "**Copy**" icon – the icon is copied and its content can be edited

The status of accessibility of each item in the list is immediately indicated äfter the item is edited or newly added.

All changes made to the structural metadata have to be confirmed by clicking on the "**Save All Changes**" button. By clicking the button a new check is automaticaly started.

Note: when leaving the page before saving the changes the changes are permanently lost.

Note: all manual upadtes are permanently lost in case you will repeat the generating procedure.

Previews
Additionally the "**Preview**" sub-menu offers several ways of preview on the created data. The options are: "**Quick partial preview**" / "**Quick full preview**" / "**Quick XML preview**" / "**Document Description**" / "**TEI P5 XML**"). There is a shortcut key available for the first three options of preview :

- **Quick partial preview**   [Ctrl+Shift+P]
  displays the "huma-readable" preview of the actually edited part of the descriptive metadata. E.g. when editing intellectual content related information the intellectual contenty only is displayed. Use the shortcut to quickly verify the information you create at the moment. When the "Quick partial preview" is called when not in the "Description"

editing mode the preview is empty

- **Quick full preview**   [Ctrl+Shift+F]
  displays the "huma-readable" preview of the descriptive metadata

- **Quick XML preview**   [Ctrl+Shift+X]
  displays the entire XML of TEI P5 ENRICH schema

Detailed Description of the form for generating structural metadata

This chapter describes in detail all the options availablefor generating structural metadata. When the generating form is set up according to your documents properties it is necessary to press the "Generate structure of the Digital Copy" button in order to generate the structure.

Please note this may take a few moments depending on the extent of particular document.

Section "NUMBERING SYSTEM"

Numbering system of the digital copy document
- offers the options "with reference to numbering system of the original document" or "numerical series only". When choosing "numerical series only" the names are replaced according to the convention used in Manuscriptorium by a simple numerous sequence corresponding to the setting defined further in the form.

Numbering system of the original document
- offers the choice of the numbering – "Foliation" or "Pagination".
This parameter is not available in the mode "numerical series only".

Section "STRUCTURE OF THE DIGITAL COPY"

Front cover, **Front end-sheet**, **Spine**, **Back end-sheet**, **Back cover**
- indicates the existence of special parts of document, as for example the covers. Tick off when your digital copy contains separate images with these parts of document. Front cover, Front end-sheet, Spine are sorted on the beginning, the others at the end of the section surface.
This parameter is not available in the mode "numerical series only".

Front part
- indicates the number of folios or pages of the front part of the document (can even be 0).
This parameter is not available in the mode "numerical series only".

Main part
- indicates the number of folios or pages of the main part of the document (must not be less than 1). Write the identification of the last folio (page) of the document, not the actual number of folios/pages. The real number is calculated with respect to the missing or exceptionally numbered pages (folios).

Back part
- indicates the number of folios or pages of the back part of the document (can even be 0).
This parameter is not available in the mode "numerical series only".

Section "IRREGULARITIES"

Special numbering pages

- marking of the folios, which are extra in the natural sequence of numbers. The record has the form X(Y), X(Y), where X defines the page where the special numbering begins and Y specifies the number of these special pages. The exceptions are separated by comma. X can be the number 1 – which corresponds to the value of MainPart, Y can be 2 – 50 (maximum number of the special numbering pages is 50, for example X(50)). These specially numbered pages are applied only in the main part and only in the tag Label and ID.
This parameter is not available in the mode "numerical series only".

Missing pages
- specification of the missing pages, These are specified individually, separated by coma, the order is irrelevant. It is also possible to write them as an interval. This is an example of a valid entry: 3, 12, 21, 38-40. The spaces are automatically deleted therefore both versions 38-40 and 38 – 40 are possible. Entered values which are beyond the scope as well as duplicate entries are ignored and the application generates a warning.
This parameter is not available in the mode "numerical series only".

Section "WAY OF DIGITISATION"

Number of pages/folios per image
- offers the choice of one page or two pages in one image file. The variant "two page/folios per image" can be used only in the mode "numerical series only". This option duplicates the same name of the file on the left side of the double page also for the right one, for each page or folio there is a generated surface. Odd names of the pages are overwritten, except for the first reference e.g. 00001.jpg, where there is expected that it is located in a separate image file.

Section "FILENAMES AND URLS"

Base URL
- basic part of the URL where the digital copy of the document is located.

Subfolder
- field for identification of the subfolder where the accessed digital copy of the document is located.

Filename prefix
- string for specification of the prefix of the generated file name. The text is placed in front of the generated file name. It is also possible to write a part of the path in the same way as in Subfolder.

Note
Into the items „Subfolder" and „Filename prefix" it is possible to write also a text which would contain slashes and therefore a wider address structure is created in the generated path. Please note that the application automatically adds a slash behind the item „Subfolder"! E.g. in the item Subfolder there was written a text: „*Folder1/Folder2/Folder3*", in the item Filename Prefix: „*Folder4/Prefix*". The generated URL is*:*
```
<graphic mimeType="jpeg" url="Folder1/Folder2/Folder3/Folder4/Prefix0001rSuffix.jpg"/>
```

Suffix
- string for specification of the suffix of the generated file name. The text is placed behind the generated file name, it is located in front of the dot and the extension.

Extension
- the extension according to the file format, it is possible to choose UPPERCASE/lowercase characters. Available extensions are PNG, GIF, JPG, JPEG.

Filename main part normalised length
- number of characters, to fill the file name from the left using zeros. In case that the entered number is lower than the number indicated Main part, the file name is zero filled only in the cases that are possible and application generates a warning.

Start from
- a number from which the numbering starts.
This parameter is not available in the numbering mode "with reference to numbering system of the original document".

with step
- increment, a value added to each next image number.
This parameter is not available in the numbering mode "with reference to numbering system of the original document".

Example of processing of entered data into XML

Numbering System

Numbering system of the digital copy document = with reference to numbering system of the original document
Numbering system of the original document   = Pagination

Structure of the digital copy

Front cover   = YES
Front end-sheet = NO
Spine   = NO
Back end-sheet = NO
Back cover   = NO
Front part   = 1
Main part   = 5
Back part   = 0

Irregularities

Special numbering pages   = 2(2)
Missing pages   = 4

Way of digitisation

Number of pages/folios per image = one page/folio per image

Filenames and URLs

Base URL   = BASEURL
Subfolder   = SUBFOLDER
Filename prefix = PREFIX
Suffix   = SUFFIX
Extension   = jpg

Filename main part normalised length = 5 *(underlined part in the example xml file demonstrates zero fill into 5 characters)*

Coloured text of entered values corresponds with the values in final xml to demonstrate the processing of data entries by generator of structural metadata.

Generated xml file

```xml
<facsimile xml:base="BASEURL">
    <surface xml:id="id_FC">
        <desc>
            <label>FC</label>
        </desc>
        <graphic mimeType="jpeg" url="SUBFOLDER/PREFIXFCSUFFIX.jpg"/>
    </surface>
    <surface xml:id="id_front_I">
        <desc>
            <label>I</label>
        </desc>
        <graphic mimeType="jpeg" url="SUBFOLDER/PREFIXF0001SUFFIX.jpg"/>
    </surface>
    <surface xml:id="id_00001">
        <desc>
            <label>1</label>
        </desc>
        <graphic mimeType="jpeg" url="SUBFOLDER/PREFIX00001SUFFIX.jpg"/>
    </surface>
    <surface xml:id="id_00002">
        <desc>
            <label>2</label>
        </desc>
        <graphic mimeType="jpeg" url="SUBFOLDER/PREFIX00002SUFFIX.jpg"/>
    </surface>
    <surface xml:id="id_00003">
        <desc>
            <label>2 bis</label>
        </desc>
        <graphic mimeType="jpeg" url="SUBFOLDER/PREFIX00003SUFFIX.jpg"/>
    </surface>
    <surface xml:id="id_00004">
        <desc>
            <label>3</label>
        </desc>
        <graphic mimeType="jpeg" url="SUBFOLDER/PREFIX00004SUFFIX.jpg"/>
    </surface>
</facsimile>
```

Errors and Warnings (and how to resolve/avoid them)

Error messages

In case the application gives the error message, it is necessary to correct the entries in the form according to the error message and following explanation.

Error in special numbered pages, check the validity or interval of the entry.
Entry of specially numbered pages (folios) is expected in form of X(Y), where X and Y is integer. Value of X defines the number of last page which is correctly numbered. Value of Y defines number of pages, which are specially numbered. Further entry is divided by a comma. In case there is a mistake in the syntax or the value X < 0 or X > number of pages of the main part or Y < 0 or Y > 50 this error message is displayed.
Example of valid entry: 3(2), 7(3).

Error in the item „Start from" in numbering mode „Numerical series only". Value is lower than 0.
Minimal allowed value in the field „Start from" is 0, user entry is lower than 0 and therefore the generation process can not start. Only positive integer numbers are allowed.

Error value in the item „with step" in numbering mode „Numerical series only".Value is lower than 1.
Minimal allowed value in the field „with step" is 1, user entry is lower than 1 a and therefore the generation process can not start. Only positive integer numbers are allowed.

Error in the item „Front part", value must not be lower than 0.
Minimal allowed value in the field „Front part" is 0. Only positive integer numbers are allowed.

Error in the item „Main part", value must not be lower than 1.
Minimal allowed value in the field „Main part" is 1. Only positive integer numbers are allowed.

Error in the item „Back part", value must not be lower than 0.
Minimal allowed value in the field „Back part" is 0. Only positive integer numbers are allowed.

Warning messages

Contrary to error messages it is possible to continue in structural metadata generation in case of receiving the warning message. It is up to the user to consider if it is necessary to respect the warning in order to produce correct outcome.

Warning, optional field „Base URL" is not filled in.
Field „Base URL" is not obligatory for the creation of valid XML file according to DTD TEI P5.

Warning, optional field „Subfolder" is not filled in.
Field „Subfolder"" is not obligatory for the creation of valid XML file according to DTD TEI P5.

Warning, optional field „Prefix" is not filled in.
Field „Prefix" is not obligatory for the creation of valid XML file according to DTD TEI P5.

Warning, optional field „Suffix" is not filled in.
Field „Suffix" is not obligatory for the creation of valid XML file according to DTD TEI P5.

Warning, in the field „Filename main part length" exceeds the extent of 10.
Maximum number of digits for fill in is limited to 10. Higher values than 10 are ignored.

Warning, in the field „Filename main part length" the number is lower than 1.
Minimal number of digits for fill in is limited by the number of digits derived from value of Main part. Lower values are ignored.

Warning, some entry in the field missing pages exceeds the value in „Main part" and will be ignored.
A value exceeding maximum number of pages in the main part was found in the list of missing pages during the check. Application will ignore this value and so it is possible to continue in generation of XML. In case you want to respect this warning, check and correct the part Missing pages.

Warning, incorrect entry of interval in the field of missing pages. This entry will be ignored.
A string detected as invalid interval entry was detected during the check. This string will be ignored by application and it is possible to continue with XML generation. In case you want to respect this warning, check and correct the part Missing pages. Correct interval is in form of X-Y, where X and Y are positive integer numbers higher than 0 and lower than value in the field Main Part.

Warning, in the field missing pages duplicities were found. Duplicity entries will be ignored.
Duplicities were found in the field of Missing Pages during the check. This can happen when the same number is written more times, when the intervals are overlapping or when entering the value which exists also in already entered interval. These duplicities will be ignored by and it is possible to continue with XML generation. In case you want to respect this warning, check and correct Missing pages.

Warning, in the field of specially numbered pages the value exceeds the allowed range.

Warning, in the field of specially numbered pages the value X - X(Y) exceeds the allowed range.

Warning, in the field of specially numbered pages the value Y - X(Y) exceeds the allowed range.

Warning, in the field of specially numbered pages the value Y - X(Y) is higher than 50.
All the above warning are generated by application when checking the entry in the field „specially numbered pages". Entry which is not allowed for the X and Y has been found. Value of X must be in the interval 1 .. value in Main part. Y can be of the value 2 – 50.