

MICHAEL Platform

Editor's guide

This document is only a part of the MICHAEL platform documentation, the *Editor's guide*. The whole guide has been grouped into one single document to ease printing. Please note however that the documentation is intended to be browsable online, with hypertext links, and you won't benefit from these links in this version.

This document has been generated on the following day: 2005-06-16.

Table of contents

Editor's Guide	4
Getting started	5
Concepts and terms	6
Connecting to a MICHAEL database	7
Login procedure	7
Predefined instance and language.....	7
Generic login form.....	8
Logout procedure	8
Personal homepage	9
My queries.....	9
My shortcuts.....	10
Browsing the database	11
Browsing through folders.....	11
Creating a new folder and deleting folders.....	12
Default folders of a MICHAEL database.....	13
Creating and editing records	14
Shortcuts to create a record.....	14
Normal procedure to create a record.....	14
Modifying an existing record.....	16
Using the input forms.....	16
Widgets	17
Simple text zone.....	17
Text area.....	18
Lists.....	18
Calendar.....	19
Fields and widgets common to most forms	21
Identifier.....	21
Links.....	21
System metadata.....	22
Digital collections	24
Overview of the form.....	24
Illustrations.....	24
Links.....	26
Institutions	27
Overview of the form.....	27
Address.....	27
Programmes and projects	28
Overview of the form.....	28
Products and services	29
Overview of the form.....	29
Location.....	29
Physical collections	30
Overview of the form.....	30
Reference documentation	31
Connecting to a database and managing users	32
Introduction.....	32
Log in and log out.....	32
User management.....	32
Administrators: managing all users.....	33
Normal users: changing your password.....	33
Folders and browsing	34
System folders.....	34
Home folder.....	35

Creating a link.....	35
Creating a query.....	36
Managing documents in a MICHAEL database.....	37
Introduction.....	37
Deleting contents and using the trash can.....	37
Viewing documents.....	38
Modifying a document.....	39
Modifying system information on documents and folders.....	39
Moving or copying documents or folders.....	40
Checking links.....	41
Changing owners and permissions.....	41
Searching for XML documents in the database.....	44
Simple search.....	44
XQuery searching and reporting.....	45
Run an XQuery.....	45
Store and reuse an XQuery.....	47
XQuery examples.....	49
Records with comments.....	49
Records modified since.....	49
List of titles.....	50
Using MICHAEL shortcuts.....	52
Linking a digital collection record to an institution.....	52
Viewing the record from the publishing module.....	53
Validating a record.....	53
Publishing records.....	55
Can a record be published?.....	55
Valid records.....	55
Publishing a single record.....	55
Publishing a folder.....	56
Results of the publishing process.....	56
Unpublishing a document.....	57
Administrating a MICHAEL instance and its content.....	59
Users and groups.....	60
Groups.....	60
Creating a user.....	60
Deleting or modifying a user.....	61
Managing lists.....	63
Creating a list.....	63
Modifying list contents.....	64
Importing and exporting contents.....	65
Exporting contents.....	65
Importing contents.....	65
Importing a single document.....	65
Importing an archive.....	66
Creating a backup and restoring a database.....	68

Editor's Guide

2005-04-04 / 2005-06-16

The MICHAEL platform editor's guide is aimed at people who will either create or administer data in a MICHAEL platform installation. This guide is currently divided into three parts:

Getting started

This part should be read before anything else. It gives basic information for creating data.

Reference

This part is a more complete reference guide for editors.

Administration

This part explains how to administer a MICHAEL instance and its contents.

At the heart of the MICHAEL platform, there is a toolkit called Xdepo. The Xdepo documentation provides some information on how to accomplish tasks such as moving folders, deleting resources, etc. This documentation is [currently available in French](#) but still contains some valuable information.

Getting started

2005-04-04 / 2005-06-16

This part of the MICHAEL platform documentation contains what an editor must know in order to create and manage content in a MICHAEL database, using the MICHAEL production module. This is not a complete reference manual, more information is or will be available in other parts of the MICHAEL Editor's Guide.

To begin with, it is essential to read about the [concepts and terms](#) used in this documentation and in the platform. Then you will find instructions to use the most important functionalities of the production module: [connecting to a database](#), your [personal homepage](#) and [browsing the content of the database](#), including information on default folders in a MICHAEL production module.

You will find next two documents explaining how to create or modify records in the database. The first one gives [general instructions](#), the second one is about the [fields common to many record types](#) in the MICHAEL data model and database.

The last five documents give general information on the input form used for creating the five types of records in a MICHAEL database: [digital collections](#), [institutions](#), [projects or programmes](#), [products or services](#), and [physical collections](#). These are not aimed at providing guidelines for creating good records in a MICHAEL database, they only explain how the forms are organized and if there are special instructions to use them.

Concepts and terms

2005-04-04 / 2005-06-16

The concepts and terms defined here are used throughout this guide.

MICHAEL platform

A set of software tools to create, store, manager and publish information about digital cultural heritage in Europe.

Production module

A part of the MICHAEL platform, the production module is responsible for the creation and management of data. A publishing module is also available.

MICHAEL database (or MICHAEL instance)

A MICHAEL database or instance is an XML database, managed with the production module, where information is stored and managed.

Editor

A person responsible for creating and managing content in a MICHAEL database. This guide is intended for editors.

Record type (or data type)

A kind of information in the database. The MICHAEL data model defines five entities, represented as five record types in the production module: digital collections, institutions, projects or programmes, services or products and physical collections.

Record (or document)

One entry in the database. It is an XML document containing information describing an object, whether it is a digital collection, an institution, a project or programme, a service or product, or a physical collection. A record is thus of a certain *type*.

Field

One piece of information within a record. Fields are stored using one or more XML elements and attributes.

Input form

A Web-based form for creating or modifying records in the database.

Folder

A container in a database. A MICHAEL database is always organized as a hierarchical structure of folders. Folders may contain records or other folders. A folder has a code (similar to a folder name on a hard disk) and may have a title in multiple languages.

Connecting to a MICHAEL database

2005-04-04 / 2005-06-16

The MICHAEL platform is based on a Web architecture. It means that you will use its functionalities with the unique help of a Web browser such as Firefox or Internet Explorer, whether it is for searching contents or editing contents.

The production module stores its data within a *database*. In order to edit data, you first need to connect to the database, using a username and a password which has been given to you by a system administrator. Before using any functionality of the production module, you thus need to know three pieces of information :

- 1 The URL of the database
- 2 Your username
- 3 Your password

Once you have this information, you may proceed to connect to the database and work on data.

Login procedure

Predefined instance and language

In some circumstances, the URL will let you connect to a specific database using a specific user interface language. In such circumstances, you will get an identification form close to this one:



Selected instance: michael-uk * ?

Username: *

Password: *

Selected language: en *

Login

[en](#) [fr](#)

In this form, you simply need to provide the correct username and password. If you provide wrong information, you will get the same form again (or the one explained in the following section). Once you click on the *Login* button, if your identification is successful, you will be redirected to your [personal homepage](#).

Generic login form

In some circumstances, you will get a generic login form, such as this one:

This form is used when the URL used doesn't provide specific information on the database and language, or when you just logged out or provided a wrong username or password.

To connect, you will need to provide four pieces of information. First you need to select the instance or database between all hosted instances in the list. Then you provide username and password, and finally the user interface language you want to use. Be careful, not all user interface languages may be appropriate for the database selected. Please stay with the information provided by your system administrator.

If you provide wrong information, you will get the same form again. Once you click on the *Login* button, if your identification is successful, you will be redirected to your [personal homepage](#).

Logout procedure

When you have finished working on the database content, you should log out of the system. If you don't use the production module for 30 minutes, you will be automatically disconnected, but we strongly encourage you to log out once you have finished working.

To do so, you must use the *Logout* link provided in the user interface. In your personal homepage, you will find a link at the top of the viewer area:



When you are browsing the content of the database, you will find a *Logout* button at the bottom of the page in your browser:



As soon as you click on one or the other, you are disconnected and you go back to the login form.

Personal homepage

2005-04-04 / 2005-06-16

When you connect to the database, you are redirected to your *personal homepage*. This is a page containing links to important information or functionalities, and adapted to you. The standard homepage for editors of the MICHAEL production module will evolve in the future, and you will be able to add new items in it.

When you are browsing the content of the database, you can go to your personal homepage by clicking on the *Homepage* link at the top of the browsing window:



Your personal homepage contains two sections: *My queries* and *My shortcuts*.

My queries

These are *administrative queries*. They will always return 0 or more records, that you can afterwards edit and view, or browse to its containing folder. You execute a query simply by clicking on it.

My digital collections

All the digital collection records last edited by yourself.

My draft records

All the records in *draft* status last edited by yourself.

My institutions

All the institution records last edited by yourself.

My last records

All the records last edited by yourself within the last 7 days.

My physical collections

All the physical collection records last edited by yourself.

My projects

All the project or programme records last edited by yourself.

All my records

All the records last edited by yourself.

My records modified since ...

All the records last edited by yourself within the last n days, where n is asked in an input box when you execute the query.

My services

All the service or product records last edited by yourself.

My records with comments

Records last edited by yourself having text in the cataloguer's comment field (system metadata).

Records with comments

Records having text in the cataloguer's comment field (system metadata).

My records due for update

Records last edited by yourself where the review date is today or before.

Records due for update

Records where the review date is today or before.

Digital collections without any link

All the digital collection records not containing at least one link.

Draft records

All the records in draft status.

Records not linked to digital collections

All the records (other than digital collections) that are not directly linked by a digital collection.

My shortcuts

There are currently ten shortcuts. Five of them let you go directly within the standard folder of the five record types. These are named *"Digital collections" folder*, etc.

The other five are shortcuts to directly create a record in its standard folder and using the default form. These are named *Create a new digital collection*, etc.

Browsing the database

2005-04-04 / 2005-06-16

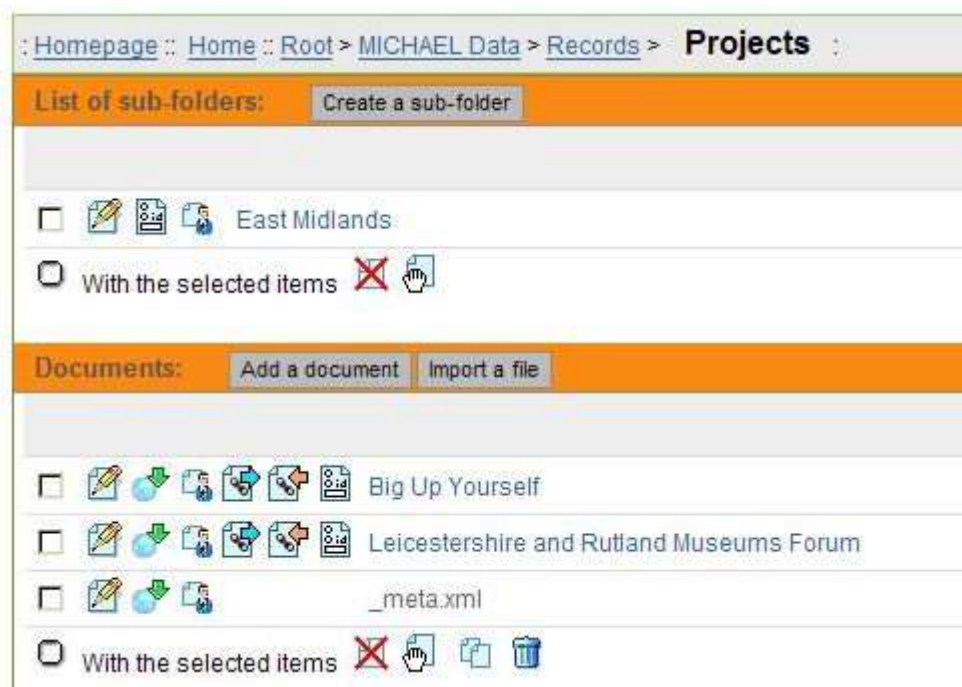
A MICHAEL database is organised with folders. An editor don't absolutely needs to create new folders, but he or she must know how to browse through folders and what are the default folders of a MICHAEL database.

Browsing through folders

In any MICHAEL database, there is a root folder containing other folders, themselves containing documents and other folders, etc. Browsing through this hierarchical structure is done largely like in Yahoo! or similar sites:

- there is always a *current folder*
- you go to a sub-folder of the current folder by clicking on its name in the list of sub-folders
- you go to a parent folder using the links in the hierarchy indicator

In order to browse quickly, you need to understand the general structure of the *viewing pane* in the MICHAEL production module. Here is an example viewing pane:



This viewing pane is visible in all pages except:

- when you are editing a form, whether for a MICHAEL record or for a specific functionality

MICHAEL

- when you are in your personal homepage

This pane contains three zones, explained here from top to bottom:

Context

This zone first contains links to go to your personal homepage and to go to your home folder (not documented yet). Then you will find links to all the parent folders of the current folder, which give you the context of your current folder. This context is followed by the current folder's name. In the example above, the current folder is *Project*, contained in the folder *Records*, contained in the folder *MICHAEL Data*, contained in the root folder of the database. You can browse to any of these parent folders by clicking on their name.

List of sub-folders

You will find there a list of all sub-folders of the current folder. You can browse to any of these sub-folders by clicking on its name. In the example above, there is only one sub-folders, its name is *East Midlands*.

Documents

This third zone contains a list of all documents contained in the current folder. You can view the document by clicking on its name, you can modify it by clicking on the first icon to the left, the *Modify* icon.

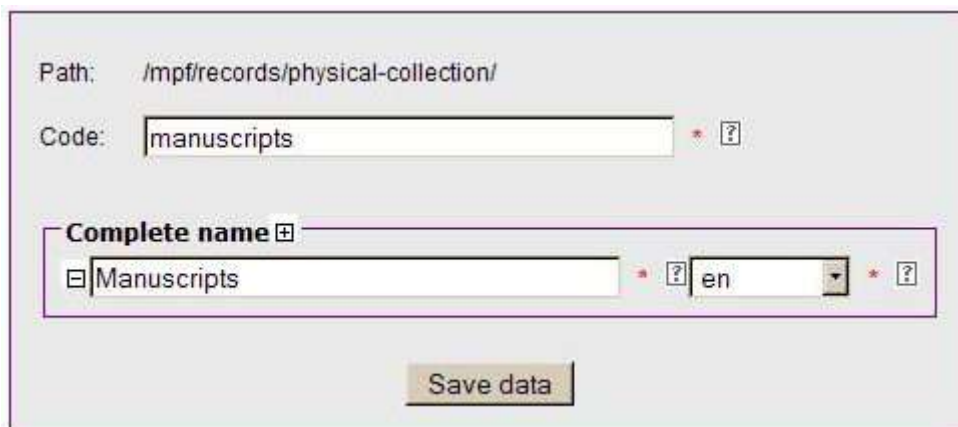
The `_meta.xml` file is a special file that contain the current folder's metadata; you can edit it to change the folder's name.

Creating a new folder and deleting folders

To create a new folder, first browse to the folder that will contain it. Once there, click on the *Create sub-folder* button before the list of current sub-folders:



You will then get a form to enter the code and the complete name of the folder:

A screenshot of a form for creating a new folder. The form has a light gray background and a purple border. It contains the following fields and elements:

- 'Path: /mpf/records/physical-collection/'
- 'Code: manuscripts' with a red asterisk and a question mark icon to its right.
- 'Complete name' with a small square icon to its left.
- 'Manuscripts' in a text input field, followed by a red asterisk, a question mark icon, a dropdown menu showing 'en', another red asterisk, and another question mark icon.
- A 'Save data' button at the bottom.

MICHAEL

The code must be unique within the current folder. **Please use only ASCII letters, digits, - and _ in your folder codes.**

The complete name can be defined for multiple languages, you should at least create a significant name for the default language of the user interface for your MICHAEL instance.

Once done, click on the *Save data* button and this will create the folder.

To delete a folder, just check the box in front of the folder name when you see it in the viewer and then click on the *delete* icon below the list of folders:



Be careful! By doing so, all folder content will be deleted, including sub-folders and their content!

Default folders of a MICHAEL database

A standard MICHAEL database has standard folders; in order to make sure that everything works correctly, the codes of these folders must not be changed. Please note that you can change the complete names of these folders if you wish.

In the following list of standard folders, we give first the path with codes, then with standard English complete names.

Code	Complete name	Description
/mpf	MICHAEL Data	All MICHAEL data, except lists.
/Lists	Lists	Lists used in forms.
/mpf/records	MICHAEL Data > Records	All MICHAEL records.
/mpf/slide-shows	MICHAEL Data > Slide shows	All MICHAEL slide-shows (feature not documented yet)
/mpf/records/digital-collection	MICHAEL Data > Records > Digital collections	All MICHAEL digital collection records
/mpf/records/institution	MICHAEL Data > Records > Institutions	All MICHAEL institution records
/mpf/records/physical-collection	MICHAEL Data > Records > Physical collections	All MICHAEL physical collection records
/mpf/records/project	MICHAEL Data > Records > Projects	All MICHAEL project or programme records
/mpf/records/service	MICHAEL Data > Records > Services	All MICHAEL service or product records

The shortcuts in your personal homepage work based on this standard structure of folders. Other structures would be possible with some simple customization of the platform.

Creating and editing records

2005-04-04 / 2005-06-16

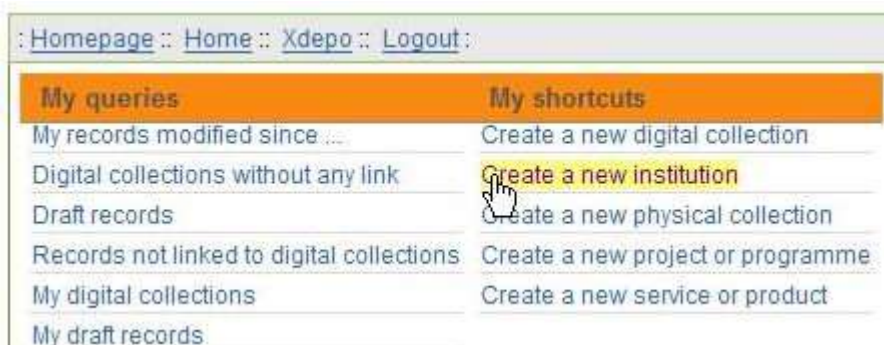
The most important task of an editor is to create and edit records for digital collections, institutions, programmes or projects, products and services, or physical collections. Specific input forms are available for these different record types, but it all starts with the same operations.

Before you need to create a new record, you must decide in which folder you will place it. Either you first browse the database to a suitable location, or you create it in the default folder and then you move it to the right place.

Shortcuts to create a record

Your personal homepage includes links to quickly create records. To use them, do the following:

- 4 Go to your personal homepage by clicking on the *Homepage* link at the top left of the browsing window.
- 5 Click on a link in the *My Shortcuts* section of the page.



These links will get you right to the appropriate form. The record thus created will be stored in the default folder for the record type you chose. If you follow the above example, you will open a input form to create a new institution, and the record will be stored in the `/mpf/records/institution` folder. You may, of course, move the record afterwards.

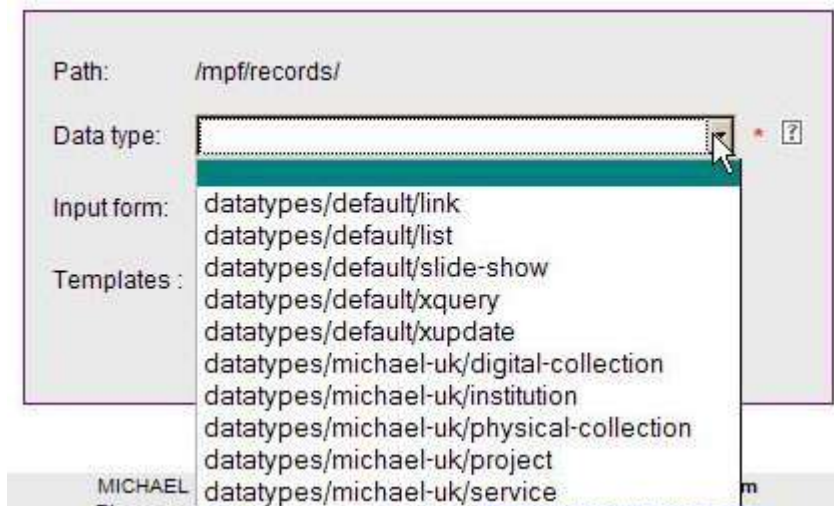
Normal procedure to create a record

The normal procedure to create a record is to first browse to the destination folder and then to create a new document in the interface.

- 1) Use the browsing feature of the application in order to make the destination folder as the current folder.
- 2) Click on the *Add document* button in the *documents* section of the browsing window:

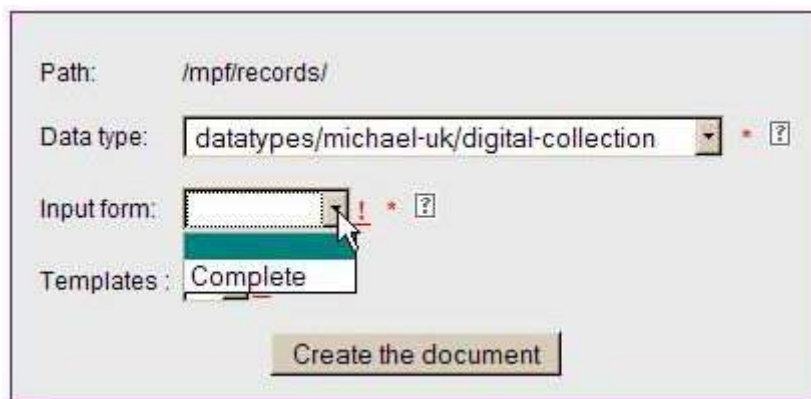


3) In the following form, choose the right data type:



Only the last five entries must be used, they correspond to the five record types or entities defined in the MICHAEL data model.

4) The form will reload to let you choose an input form for this record type:



For now, only a *complete* form is available for all the data types.

5) The form will reload to let you choose a template for this input form:

Path: /mpf/records/

Data type: datatypes/michael-uk/digital-collection * ?

Input form: Complete * ?

Templates: Default * ?

Create the document

For now, only one *default* template is available for all forms.

6) Click on the *Create the document* button.

Once this process is completed, you will get the first screen of an input form for the selected data type. You can then proceed to enter data using the widgets explained later in this document.

Modifying an existing record

To modify an existing record, you need to browse to the location of that record, or to search for it. Once it is displayed in the *documents* part of the viewer, you can click in the first icon to the left of the screen, on the same line as the record you want to edit:

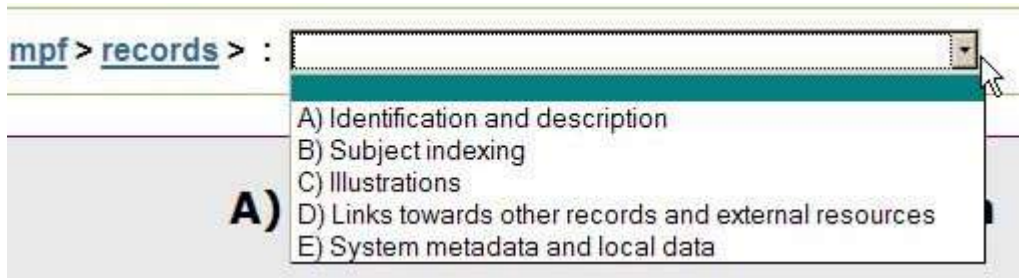


This will get you to the right input form for this record, and you will be able to modify the record.

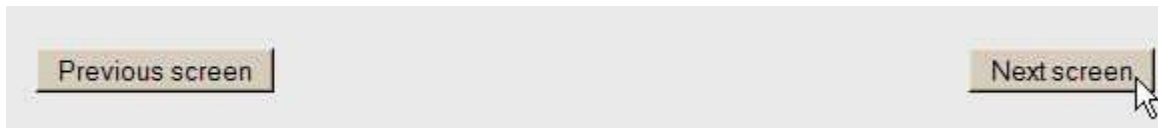
Using the input forms

The input forms used in the MICHAEL production modules are all divided in many screens, in order to get lighter pages and to ease the data entry process.

There are two ways to go from one screen to the other. You can use the drop-down list of screens available at the top of every form screen to go directly to any of the screens:



You may also choose the previous or next buttons located at the bottom of each screen:



In both cases, the screen currently being displayed must be valid before going to another screen.

In order to save a record, you absolutely need to go to the last screen of the input form and to click on the save button at the bottom of the screen:



Currently, this is the only way to save your modifications! So please be sure you do this before leaving the form by any mean!

Widgets

Input forms contain widgets. Widgets let you type or select information that will be stored in the database. In this section, we present all the widget types you will find in the various input forms, with explanations on how to use them.

Simple text zone



A simple text zone lets you enter text on a single line. In general, the size of input is not limited, although it can be in some cases. The input size is never bound by the visible part of the widget; text can be longer than the part visible.

Some fields are repeatable, although they contain free text. In such cases, you can add an occurrence by clicking on the + sign close to the field label. You can remove an occurrence by clicking on the – sign on the left of the corresponding text zone. The following figures shows such a widget:



Text area



A text area is not only a larger zone for entering free text, it will also let you create paragraphs within the text. Paragraphs are delimited by a carriage return. You may separate paragraphs with more than one carriage returns to ease the reading and writing, but multiple carriage returns are considered as only one paragraph delimiter.

Text are are never limited, you can enter as many text as you want.

Lists

Lists are widget that let you select one or more values. They can take many forms.

A simple drop-down list is as shown below:



With these widgets, you can only select one value.

A multiline list looks like this:



MICHAEL

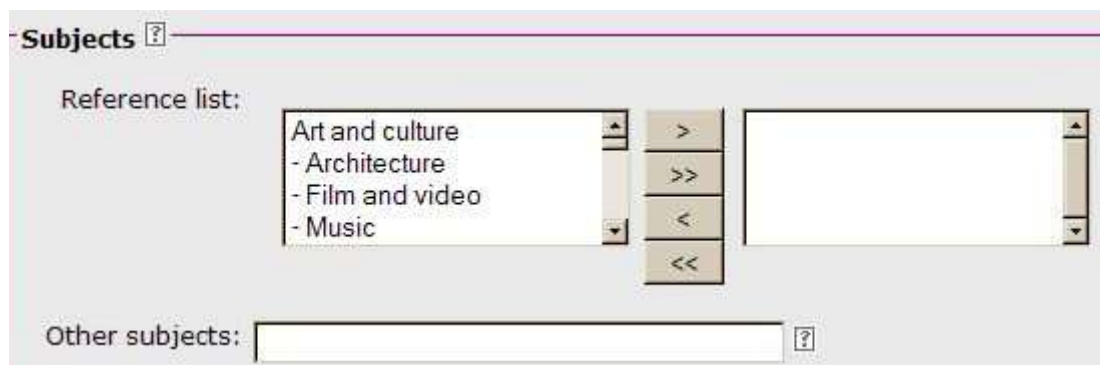
In such a case, you can select more than one value using the standard Windows or Mac OS X keyboard shortcuts. For instance, under Windows, you add another value by holding the CTRL key while clicking on the new value. You can select many successive values by holding the SHIFT key instead.

Sometimes, multiline lists are not suitable since you can't see all the values selected, if the list is long. For such cases, you will use double lists, such as:



The left list contains all the values not selected; the right list contains the values currently selected. You can select a value by clicking on it in the left and then click on the > button in the middle. It will also work if you select more than one value on the left. The < button lets you remove a selected value; to do so, click on the value to remove on the right and then on the < button. It will appear again in the left list. The >> and << will let you add or remove all values. Please note that you can add or remove values also by double-clicking on them.

All the previous list widgets are for closed list. It means that you can only select a value from the list. Sometimes, you can also add some information not present in the list. To do so, you will use a double open list, such as:



The double list works as described before. To add values not in the reference list, use the text zone below and separate values with a semi-colon (;).

Calendar

To enter a precise, a calendar may be used, such as:

Review date of the record:

Record editorial status:

Agent:

Language of the record:

Comments on the record:

< April > < 2005 >

M	T	W	T	F	S	S
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1
2	3	4	5	6	7	8
<input type="button" value="Today"/>						

You can navigate the calendar and select the appropriate date.

Fields and widgets common to most forms

2005-04-04 / 2005-06-16

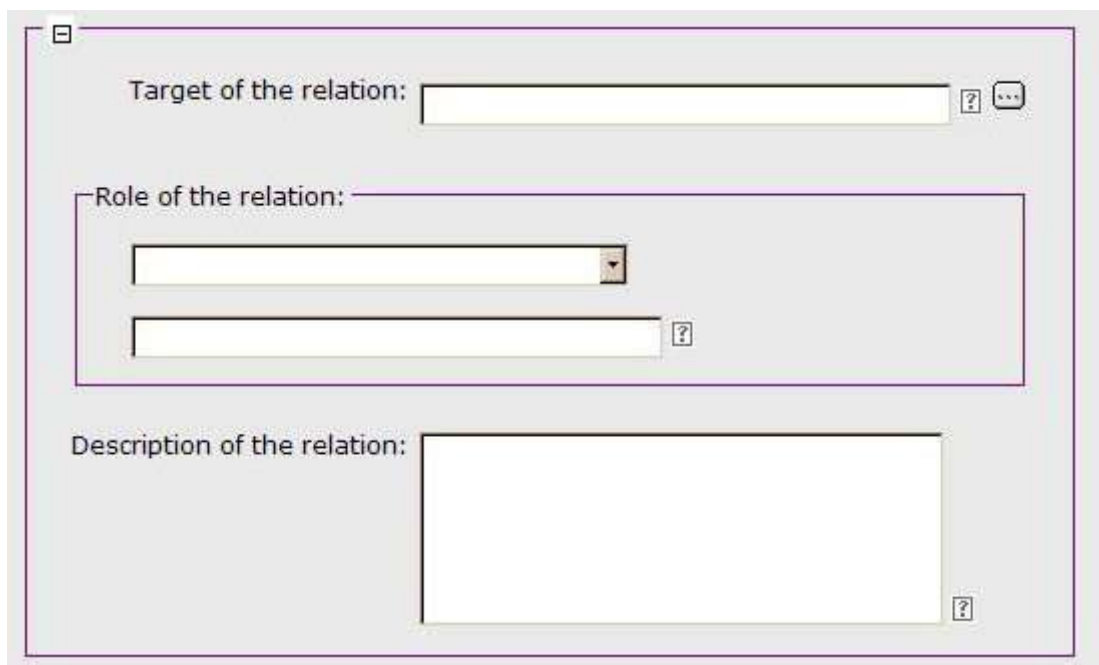
There are different input forms for each record type in a MICHAEL production module. Each form has its own set of fields filled in using specific widgets, but some fields and widgets are the same for all or most of the forms. We introduce these fields and widgets in this document.

Identifier

Whether the identifier is automatically assigned or is typed by the editor depends on your local configuration. In the case you need to provide an identifier (or part of it), **it is very important to use a unique identifier in the database**, among all records of any kind.

Links

Links are used to create relationships between records and to the external world. The form used to create a link looks like:



The screenshot shows a form for creating a link. It is enclosed in a light gray border with a small square icon in the top-left corner. The form is divided into three main sections:

- Target of the relation:** A text input field with a help icon (question mark) and a search icon (three dots) to its right.
- Role of the relation:** A section containing a dropdown menu, a text input field with a help icon, and a search icon.
- Description of the relation:** A large text area with a help icon in the bottom-right corner.

A link is expressed with three pieces of information.

Target

MICHAEL

The target is either a URL when you create a link towards an external resource, or the identifier of record within the same MICHAEL database. See below for help on selecting an identifier. In most of the cases, this field is mandatory, although the form don't enforce it. See below for exceptions.

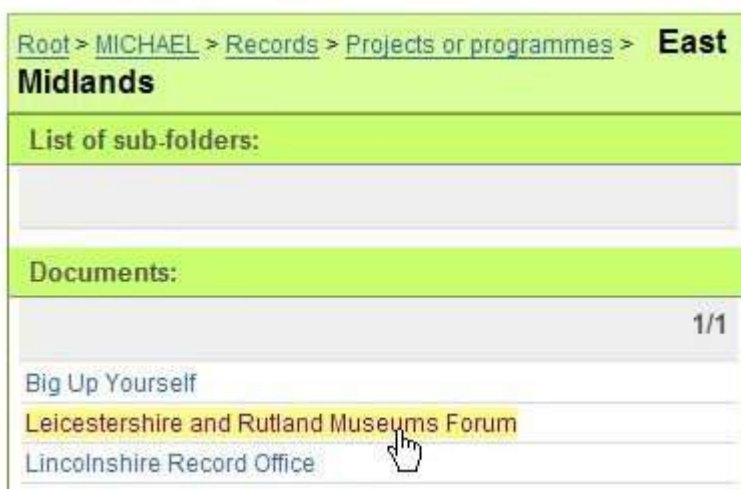
Role

The role is the type of relation or link you create. This is a very important field and it should always be used for usual links. See below for exceptions. The role is either selected in the drop-down list, or if you select the *Other* value you can add a new role in the text zone below.

Description

This optional field lets you add information about the link. This is useful if, for instance, the role does not explain completely or exactly why you create such a link.

When you create a link towards another record in the same database, you need to specify the identifier of the target record in the target field. To do so, it is easier to use the ... button on the right of the text zone. This will open a small window like this one:



This window contains a simplified browser of a database. You can browse through the folders, and whenever you select a document its identifier will be inserted in the target text zone.

System metadata

System metadata are part of all the input forms – always the last screen. They contain information that you cannot edit, such as the creation and modification date, and the username of the agent having made the last modification.

You can edit other fields that are explained here.

Review date of the record

The review date is an indication to help editors maintaining the data. It can serve as a reminder to know when to verify the accuracy of the information held in the record. Using this field is optional, but when you use it you should always specify a date in the future.

Record editorial status

The editorial status is either *Draft* or *Valid*. Only valid records can be published. Please also note that only users member of the *validators* record can change this field; for others it is always set to *Draft*.

Language of the record

MICHAEL

This is the *cataloguing language*, not the language of the object described by the record. It defaults to the current user interface language, but it can be changed.

Comments on the record

These are internal comments, for editors, not for the public.

Digital collections

2005-04-04 / 2005-06-16

Digital collections are at the heart of the MICHAEL system. It is thus not surprising to learn that they are the most difficult to describe, because they have a lot of descriptive fields and some of them are very specific.

Overview of the form

Digital collection records may be created with a form divided in five parts or screens:

A) Identification and description

Identifier and title form the *Identification* section. The description section contains fields for description, legal status, language, digital document format and type, content type, collection size and accruals.

B) Subject indexing

This screen contains fields for category, subject, period, culture, spatial coverage, famous people, place, event or item, and dates. Lists of possible values are provided for many of these fields.

C) Illustrations

In this screen, you may upload illustration of the digital collection such as a digital image.

D) Links towards other records and external resources

A very important section for the digital collection record, in order to build the relationship information at the heart of the MICHAEL data model.

E) System metadata and local data

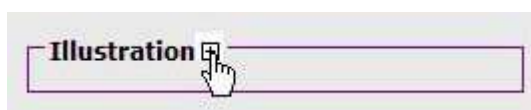
As for any record type, some system information is defined here.

Most of the information is contained within the first two screens.

Illustrations

In a MICHAEL database, only the digital collection records may contain illustrations. An illustration is a digital object that illustrates the digital collection described. Although the production module may handle any kind of digital data as an illustration, the MICHAEL publishing module handles only images in the common Web formats (JPEG, PNG, ...).

When creating or editing a record, you may have an empty list of illustrations. In that case, you may see something like:



MICHAEL

To add an illustration, just click on the + button. Whenever you need to add a new one, click on that button again. In theory, there can be an unlimited number of illustrations added to a record.

An illustration is composed of four pieces of information.

Title

The title or legend of the illustration.

Author

The creator (photograph for instance) of the illustration.

Legal status

A statement about the legal status of the illustration.

Source files

The source or media files for this illustration, such as JPEG file. See below for more information on source files.

The part of the form used to fill in the first three pieces of information is very simple and looks like this:

The screenshot shows a form titled "Illustration" with a plus sign icon. It contains four input fields, each with a question mark icon to its right:

- Title:** Legend of the illustration
- Author, photograph (creator):** The author of the illustration
- Legal status:** Some legal status
- Source files** (with a plus sign icon next to the label)

For the source files, you need to click the + button beside the *Source files* label. This will add a new group of fields. You may repeat to add more than one source file. The publishing platform will currently support two source files for images, one for a thumbnail and another for a full screen display.

Once you add a new source file, the form looks like:

Source files

File role: Thumbnail ?

Source file: Full screen Parcourir... ?

Format:

MIME type:

For each source file, you need to select its role – whether thumbnail or full screen – and you need to provide the file itself. To do so, click on the *Browse button* (the exact label depends on your browser) and select the file on your computer. Once you submit the form, the appropriate information for the format and MIME type will be added automatically. When you edit a record with an already provided image, you can replace it by clicking on the same button.

Images are stored in the database, in a subfolder named *medias* from the folder where the record is.

Links

Links are very important for digital collections, because in the MICHAEL system all relationships directly involving a digital collection must be described in the digital collection record. Also, all records should be linked to at least one digital collection.

Institutions

2005-04-04 / 2005-06-16

Institutions are quite simple records, but the input form used to create them has some specific features that need more information.

Overview of the form

Institution records may be created with a form divided in four parts or screens:

A) Identification and description

This screen contains the identifier, name, acronym, jurisdiction, administrative status and institution type.

B) Institution address

Complete information for contacting the institution can be provided: address (divided in small pieces of information), phone and fax number, URL, email, contact person.

C) Links towards other records or external resources

Links towards other records, such as a larger parent institution. Do not use this linking mechanism to store the institution online address.

D) System metadata and local data

As for any record type, some system information is defined here.

Address

The institution address may be the most specific part of an institution record, and provides important information. In general, this part of the form will have been customized for a specific instance of the MICHAEL production module.

Typical customization include:

- Patterns for valid content such as postal codes.
- Various level of regional information, such as *départements* in France or *Devolved administrations* in United Kingdom.
- Special behaviour when selecting an information: for instance, when selecting a county in UK, it can automatically select the appropriate region and devolved administration.
- Specific lists of regions, départements, counties, provinces, etc.

You need to pay attention to these specific behaviours and rules, but for more information you should contact your system administrator or read a specific guideline for your instance.

Programmes and projects

2005-04-04 / 2005-06-16

This record type can represent either digitisation programmes or projects.

Overview of the form

Project or programme records may be created with a form divided in five parts or screens:

A) Identification and description

In the identification section, you will find fields for the identifier, a link to a logo, a title and an acronym. The description section contains the description itself, along with information on the digitisation process and the funding sources.

B) Communications and Status

Communications include information such as phone and fax number for the project. Status is about the start and end date of the project, along with its completion status.

C) Links towards external resources and other records

The links for projects or programmes let you create relationships with other larger programmes or projects, towards a responsible institution, etc.

D) System metadata and local data

As for any record type, some system information is defined here.

Nothing in the input form is specific for projects and programmes.

Products and services

2005-04-04 / 2005-06-16

Products and services are the same record type in the MICHAEL system.

Overview of the form

Product or service records may be created with a form divided in five parts or screens:

A) Identification and description

Identifier and title form the *Identification* section. The description section contains fields for description, language, maintenance, legal status, etc..

B) Access and location

Access is about access type, accessibility, WAI compliance level, access conditions and technical requirements. Location lets you provide an online location.

C) Links towards other records and external resources

Links may be created to store a relationship with an institution responsible for the service or which has created it.

D) System metadata and local data

As for any record type, some system information is defined here.

Most of the information is contained within the first two screens.

Location

Location plays an important role for an online resource. Typically, it will contain the URL address, for a Web site for instance.

You may add many locations to one service or product record. For each location, you can provide two pieces of information:

Description

The description is a simple explanation for the location, particularly useful when you have more than one location. It can contain, for instance, a statement such as *South-American mirror site*.

Address

The address is usually a URL. Please note that a valid URL should be provided, including the leading `http://`.

Both fields are optional.

A location may also contain information to obtain a product not available online. For instance, you can store information in how to purchase a CDROM. In this case, use the description field.

Physical collections

2005-04-04 / 2005-06-16

Physical collection records provide information on the sources of a digitisation project. They are simple records, since the focus of MICHAEL is on digital collections.

Overview of the form

Physical collection records may be created with a form divided in three parts or screens:

A) Identification and description

This is the main section, with all information except the links and system metadata.

B) Links towards other records and external resources

Links can be use to create relationships with owning or responsible institutions, other parts of the physical collection, etc.

C) System metadata and local data

As for any record type, some system information is defined here.

Reference documentation

2005-04-04 / 2005-06-16

This part of the editor's guide contains more detailed information than the *Getting started* guide. You must first read the *Getting started* guide before reading this reference documentation.

Functionalities documented here are available to content editors. Administrative tasks are documented in a [specific section](#).

The main parts of this reference documentation are:

- 6 [Log in and users](#)
- 7 [Folders and browsing](#)
- 8 [Managing documents](#)
- 9 [Searching documents](#)
- 10 [MICHAEL shortcuts](#)
- 11 [Publishing records](#)

Connecting to a database and managing users

2005-05-24 / 2005-06-16

Sévigny, Martin (AJLSM, France)

Introduction

Users play a key role in a MICHAEL database and in the application used to manage its contents. Documents and folders are always owned by a user; modifying these documents or folders is restricted to some users.

Also, it is impossible to use the services of a MICHAEL database with the production module without being identified. Then, the system knows who is accessing data and what are its privileges.

In this document, you will find detailed instructions to connect to a MICHAEL database, to logout, to modify the current user's parameters, but also to create modify and delete users and groups. Please see also the section devoted to [user management](#) in the administration guide.

Log in and log out

In order to use the services of the MICHAEL platform production module, you first need to log into the system, with a given username and password. Every instance of the production module has its own set of usernames and associated privileges.

Once a user logs in, he has the same set of privileges during all its current session. This session may expire in two circumstances:

- If the user chooses to log out
- If the user doesn't access any page in the production module for a certain amount of time, which can be configured on the server, but is usually around 30 minutes.

If the session ends, or if no session has been opened, and the user tries to access one service of the production module, the user is redirected to a log in form. The log in procedure is explained in the [getting started guide](#), along with the log out procedure.

User management

User management functionalities let people create users and groups and eventually modify their password. If you are an administrator of the MICHAEL database, you will be able to create new users and to modify existing users. If you are not an administrator of the MICHAEL database, you can only modify your own password.

Administrators: managing all users

The [guide for administrators](#) contains all information needed to manage users, along with specific groups of users used in the MICHAEL production module.

Normal users: changing your password

All users can change their own password. To do so, you need to click on the *User* button in the toolbar at the bottom of the page, as in this figure:



Please note that if you are an administrator of the MICHAEL database, you won't get this button, but a button to manage all users, as explained in the section above. You will still be able to change your password, among other operations on users.

Once you click on the *User* button, you will get this form:

A form for changing a user's password. It contains three input fields: 'User:' with the value 'msevigny', 'Password:', and 'Re-password:'. The 'Password:' and 'Re-password:' fields have red asterisks to their right. Below the fields is a 'Change user' button.

You then need to type twice the new password you wish to use. This password must have at least six characters. Once you have typed it twice, you click on the *Change user* button. The next time you log in, you will need to use this new password.

Folders and browsing

2005-05-24 / 2005-06-16

Sévigny, Martin (AJLSM, France)

The contents in a MICHAEL database is organized in hierarchical folders, such as a hard disk. In order to manage contents in such as database, you need to be able to browse the folders and to create, modify and delete folders.

All these functionalities are explained in the [getting started guide](#). We will only add information about home and system folders here.

System folders

Some folders play a key role in a MICHAEL database, and may be you don't have access to some of them. These system folders are all located at the root of the database; you can always browse to the root of the database by clicking on the *Root* link in the in context part of the viewing pane.

The following figure shows the root of MICHAEL database, with the system folders explained below:



The system folders and their role are:

Lists

Contains lists used in forms. These lists can be edited with a specific form. The guide for administrators contains a [section on lists](#).

Templates

This system folder contains document templates with some fields already filled in. These templates can ease the creation of documents using forms.

XQuery

In this folder you can put administrative queries (using the Xquery language). These queries can then be run against the database.

XUpdate

Similar to the Xquery folder, you can put here administrative queries based on the Xupdate language to modify data. These queries can then be run later.

home

This virtual folder is the current user's home folder.

system

System information such as users.

Trash

The trash can, containing deleted documents. The trash can is personal to the user, it is not shared between users.

Home folder

Each user has its own home folder. This folder is always accessible from the context part of the viewing pane by clicking on the *Home* link. It is also accessible from the root of the database.

This folder behaves like any other one, you can browse to it, create sub-folders, create, copy or move documents, etc. You have all privileges on this folder, except to delete it, and you are the only user (except the database administrators) that can view its content. It is thus the right place to put your own data, temporary documents, test documents, etc.

Within this home folder, you will have some predefined folders, as the next figure shows:



The XQuery and XUpdate folders behave just like the corresponding system folders at the root of the database (see previous section). The Menu folder is a special folder where you can put the items you wish to appear on your [personal homepage](#). This Menu folder itself contains two special sub-folders, as in the following figure:



The folder *My shortcuts* contains the links you will find in the personal homepage. Each link is a document in the folder. The folder *My queries* contains the queries you will find in your personal homepage. each query is a document in the folder.

Creating a link

To create a new link, go into the My shortcuts folder and click on the *Add a document* button. In the form you get, choose the datatype `default/links` such as in this figure:

Path: /home/sevigny_dot_ajlsm.com/menu/mylinks/

Data type: datatypes/default/link * ?

Input form: Creating a link * ?

Templates: Default ! * ?

Create the document

Once you click on the *Create the document* button, you will have a special form to create links or shortcuts for your personal homepage. This form looks like this one:

Link title : ⊕

Titre du lien * ? fr * ?

Link title * ? en * ?

Localisation: index?uri=/ * ?

Add the link

A link is first a title, which can be repeated in multiple languages if you wish, and then the URL itself. Relative URLs are matched against the root of the MICHAEL platform production module installation. In order to put the correct URL, it is recommended to either copy and modify an already existing shortcut or to browse to the location you wish as a target and to copy the relevant part of its URL. For instance, to link to the slide-show folder, use `index?uri=/mpf/slide-shows/`.

Creating a query

To create a query in your home folder, browse to the XQuery folder special folder and then click on the *Add a document* button. You can then follow the instructions provided in the [querying section](#) of this reference guide.

Managing documents in a MICHAEL database

2005-05-24 / 2005-06-16

Sévigny, Martin (AJLSM, France)

Introduction

You can store XML document in a MICHAEL database, and these documents are organized in folders. Once these documents are created and stored, you can operate on them with many functionalities, like deleting, moving, copying, etc. Many of these operations are also available on folders. In this case, they act on both the folder and its contents, whether they are documents or sub-folders, in a recursive fashion.

Some operations act on more than one folder or document. In this case, the procedure is always the same: you first select the the documents or folders by clicking on the corresponding checkbox, and then you click on the icon corresponding to the operation to perform. The next figure shows an operation consisting of deleting two documents:



For those operations on many documents or folders, the icon is always located to the right of the phrase *With the selected items*.

The other operations act on a single folder or document. In this case, you need to click on the corresponding icon on the left of the relevant folder or icon.

Please note that you cannot perform an operation on both a folder and a document at the same time.

Deleting contents and using the trash can

The deletion operations are always performed on folders or documents selected. The trash can is used for documents selected.

Deletion is definitive, you cannot get your content back, there is no undo mechanism, so please be careful. Also, if you delete a folder, you delete all its contents, documents or sub-folders. To delete documents or folders, you first select them and you then click on the deletion icon:



To put a document in the trash can is less drastic, since you will be able to restore the documents to their original location, unless you empty your trash can. To put documents in the trash can, you first select them and the click on the trash can icon:



Once you have done that, the documents won't be visible in their original folder any more. To empty the trash can or to restore documents, you must browse to the trash can system folder; to do so, click on the *Root* link in the context part of the viewer and then go into the *Trash* folder.

The Trash folder is similar to other folders. The only exception is a new operation available for the selected documents: restore documents as the next figure shows:



You select the documents you wish to restore and then click on the restore icon:



Once restored, the document will be in the same folder as it was before being put in the trash can.

Viewing documents

Along with creating, moving, deleting, etc. documents, you can also view them, either by downloading the XML version or by viewing an HTML version in your browser.

To view the XML source of a document, you just need to click on the *download* icon on the left of the document:



This operation opens a new browser window and you will see the XML source of the document. Depending on the browser you use, the exact display of XML files may vary. If XML is not supported by your browser, you will probably be asked to save the document or use another software.

To view the document in HTML within your browser, you just need to click on the hypertext link on the title of the document, as in the following example:



MICHAEL

The stylesheet used to display a MICHAEL record is close to the one used in the standard interface of the publishing module. The exact appearance may be different one instance from the other.

Modifying a document

A document in the MICHAEL database may also be modified to update it, add information, etc. To do this, you just need to click on the *Edit* icon on the left of the document:



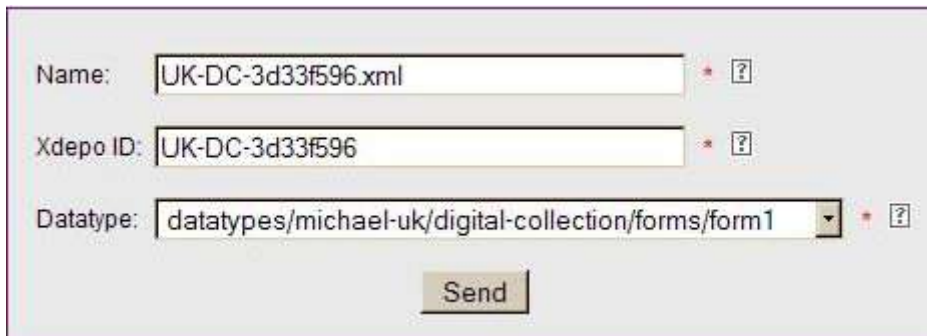
After you click on it, the appropriate form will be opened with the data already filled in. You can modify the fields you want, as if you were creating it.

Modifying system information on documents and folders

You can also rename a document or modify its identifier. To do this, you need to click on the following icon on the left of the document:



After the click, the following form will be available:



Name:	<input type="text" value="UK-DC-3d33f596.xml"/>	*	?
Xdepo ID:	<input type="text" value="UK-DC-3d33f596"/>	*	?
Datatype:	<input type="text" value="datatypes/michael-uk/digital-collection/forms/form1"/>	*	?

You can modify three informations:

- 12 The name of the item, which is the virtual file name used in the database. You can change this name, but you must keep the same extension, such as `.xml` for normal records.
- 13 The document identifier, which must be unique among all items in the database. So please use this feature with care. This is a system identifier, if you change it it won't change the record identifier from the MICHAEL data model.
- 14 The form associated to the document. This form will be opened when you click on the *Edit* icon of the document.

Once the data is changed, you need to click on the *Send* button to submit them.

Moving or copying documents or folders

Items in the database can be moved or copied. Moving deletes the document from its original location, but copying keeps it in its original location. In both cases, you can act on many documents all together, by first selecting them. You can only move folders, not copy them.

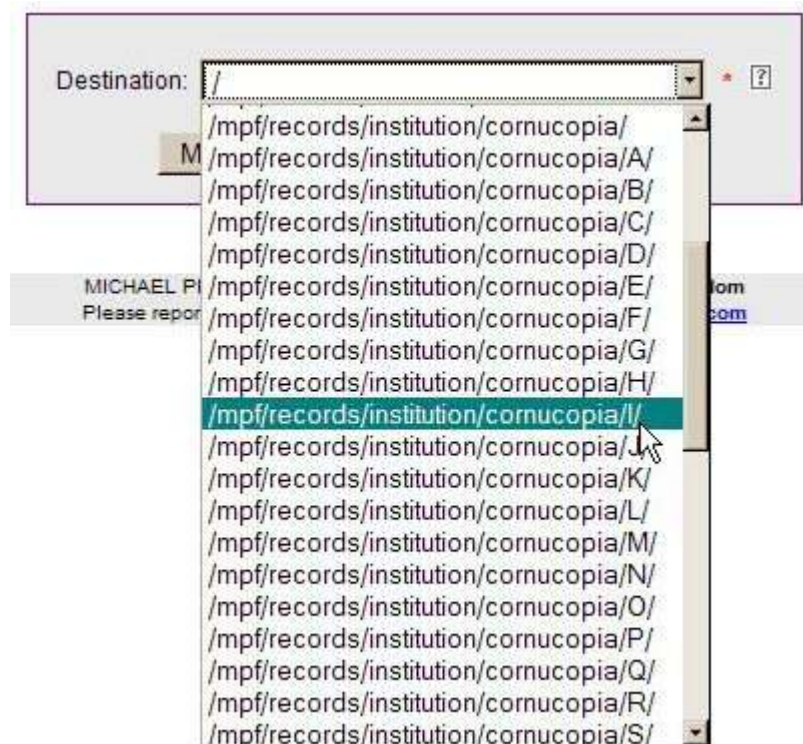
To move documents or folders, you need to use the following icon:



Here is an example where we selected one document and are about to move it:



Once you click on the *Move* icon, you will then get a form where you can select the destination folder. This folder must exist and you must have write access in it. The form uses a drop-down list for the folders, and each folder is represented by its code (and not its name). Here is an example:



Here, the `/mpf/records/institution/cornucopia/I/` folder is about to be selected as the destination folder. Once you select the destination folder, you click on the *Move or copy this document or folder* button and the operation will be performed.

Copying works the same way as moving. You must first select documents or folders you wish to copy, and then click on the *Copy* icon:



You will then get the same form as the for moving documents, where you can select the destination folder. Please note that copying documents will create new system identifiers, since they must be unique in the database. MICHAEL identifiers won't be change though.

Checking links

MICHAEL records contain relations or links with other records. These links form an important part of the data and play a central role in the overall architecture. The production module has some functionalities helping you to understand links between records.

The platform distinguishes the links *from* a document and the links *to* a document. In the first case, the document is the *source* of the link, and in the second case it will be the *target*.

In order to find all targets of links from a specific document, you need to click on the *Outgoing links* icon on the left of this document:



Once you click on it, you will get a standard search results window, with all target documents shown, as in this example:



You can also find easily all documents with links to a specific documents, by clicking on the *Incoming links* icon on the left of this specific document:



You will then get search results, as in the previous example.

Changing owners and permissions

There is a sophisticated mechanism in the database to manage permissions on folders and documents. The fundamental concepts underlying permission management are:

MICHAEL

- Each document and each folder in a MICHAEL database is owned by a user and a group. These are called *owning user* and *owning group* for this particular resource.
- Each document and each folder in a MICHAEL database has specific permissions along three axis: read, write and update.
- For each document and each folder in a MICHAEL database, and for each axis, you can set permissions to the owning user, to the owning group and to others.

There are thus 11 informations on permissions on each document and each folder: three permissions for the three axis, which makes nine, along with an owning user and an owning group. This approach is close to the UNIX or Linux permission management system.

All these permissions can be changed with a single form. To display this form, you need to click on the *Permissions* icon on the left of the document or folder you wish to act on:



Once you click on this icon, you will get the form to modify permissions:

Localisation: /mpf/records/institution/

	User	Group	Others
Read	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Write	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Update	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Owner:

Owner Group:

Apply this modifications to sub-folders and resources

There are two main sections in this form, one for the nine permissions and the other to choose the owning user and group. The details of the form follow.

Information about the resource to change

This first part displays the code of the resource to change, which is the code of the parent folders, of the current folder and, if applicable, the current document.

Permissions given

This second part shows which permissions are set for this resources, along the three axis and for owning user, owning group and others. In the above example, the owning user and owning group have all permissions on the document, but other users can only read it. This part of the form is completed by a button to change only the permissions, without affecting owning user and group.

Owners

The third part shows the owning user and the owning group, with a drop-down list containing all existing users and groups in the database. This part is completed by a button to change only the owners for the resource, without affecting the permissions.

General operations

The last part contains a button to let you change both permissions and owners. If you are acting on a folder, you also have a checkbox to specify that you want to apply the changes recursively, which means to all resources contained in the folder and its sub-folders.

So from this single form, you can do three operations:

- 1 **Change only the permissions**, by checking the corresponding boxes in the second part of the form and by clicking on the *Change permissions* button.
- 2 **Change only the owners** by selecting an owning user and an an owning group and then by clicking on the *Change ownerships* button.
- 3 **Change both permissions and owners**, by checking the appropriate permissions, selecting the owning user and group and then by clicking on the *Change permissions and ownerships* button.

In all cases, when you are acting on a folder, you may choose to apply the changes recursively by clicking on the *Apply modifications to sub-folders and resources* checkbox.

Searching for XML documents in the database

2005-05-24 / 2005-06-16

Sévigny, Martin (AJLSM, France)

The MICHAEL platform production module lets you search XML documents in a database. There are two ways to search: simple search and XQuery search and report.

Simple search

The simple search is always available from the viewer, in the search zone at the bottom. The search bar looks like this:



To perform a search, you may specify four different informations:

- 4 The search zone in the documents, either *Fulltext* or *Identifier*. A drop-down list on the left lets you choose the search zone. By default, full-text search is selected.
- 5 The words to search are typed in a text box in the middle of the search bar.
- 6 If you type many words, you can specify if you want to retrieve documents with all the words or at least one of the words. Radio buttons below the search zone drop-down list lets you choose your option: *and* means all the words, *or* means at least one word.
- 7 The location, which means the folders where you want to search. A drop-down list lets you choose between the root of the database or the current folder.

Once these informations provided, you can run the query by clicking on the *go* button on the right. You will then get search results such as these ones:



The search results are close to what you see when you are browsing folders. Each document found is on its own row, with an icon to modify the document and another one to download it. Then, you may view the document by clicking on its title, or you can browse to its location (folder) by clicking on the folder name just before the document title.

This simple search engine aims at providing a quick way to identify documents to work on. Please note that if you know the identifier of a document, you can quickly find this sole document with the search bar also.

Finally, you will never find documents for which you don't have at least read access.

XQuery searching and reporting

XQuery is a query language – and much more – almost standardized by the [W3C](#). In the MICHAEL production module, it will let you find document using complex queries on both the structure and the contents of documents. But it can also be used to generate complex reports on your data.

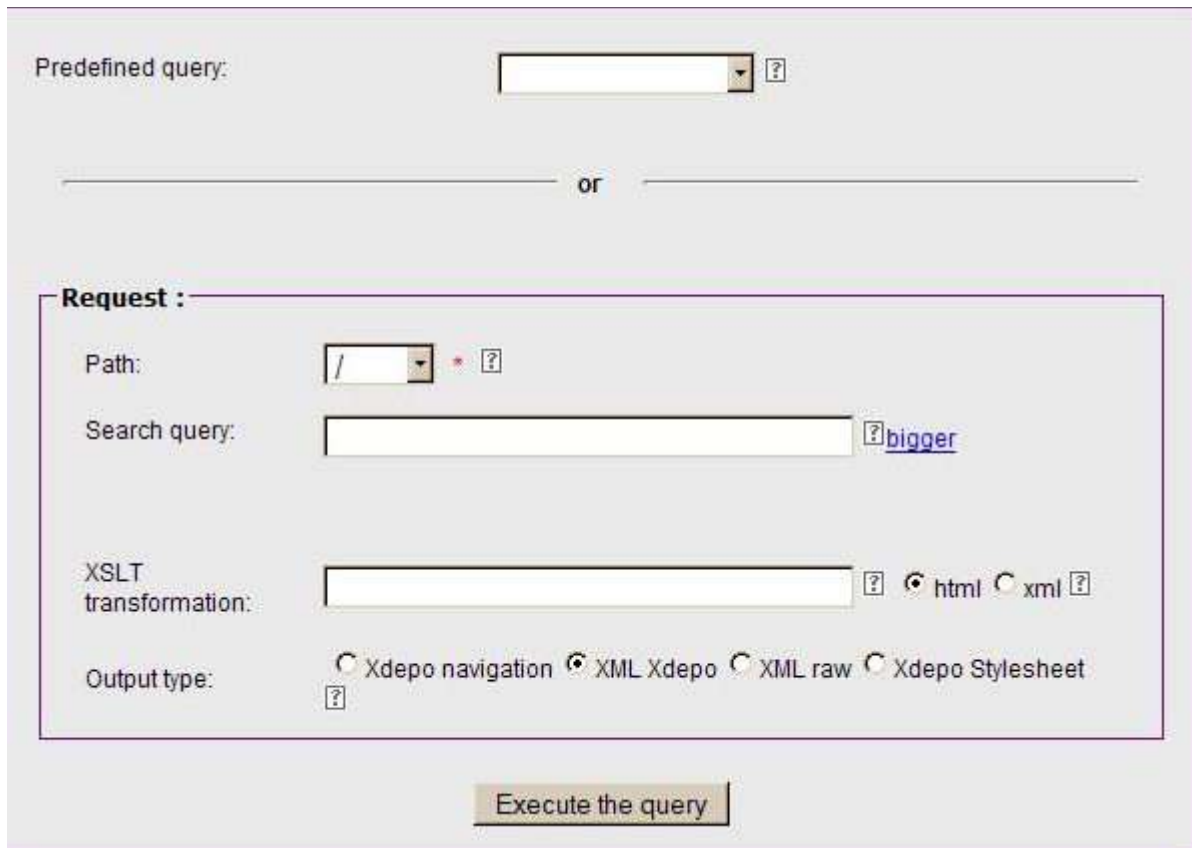
The following informations let you use the XQuery functionalities in the production module, but for more information on XQuery itself you should read relevant external documentation.

Run an XQuery

To run an XQuery, you must use the XQuery button in the toolbar at the bottom of pages.



If you intend to run the query on documents within a specific folder, you should browse to this folder before. Once you click on this button, you will get a form like this one:

A screenshot of a web form for running an XQuery. At the top, there is a 'Predefined query:' label followed by a dropdown menu and a help icon. Below this is a horizontal line with the word 'or' in the center. The main section is titled 'Request :'. It contains four rows of input fields: 1. 'Path:' with a dropdown menu showing '/' and a help icon. 2. 'Search query:' with a text input field and a help icon followed by the word 'bigger'. 3. 'XSLT transformation:' with a text input field, a help icon, and two radio buttons labeled 'html' (selected) and 'xml'. 4. 'Output type:' with four radio buttons: 'Xdepo navigation', 'XML Xdepo' (selected), 'XML raw', and 'Xdepo Stylesheet'. At the bottom of the form is a button labeled 'Execute the query'.

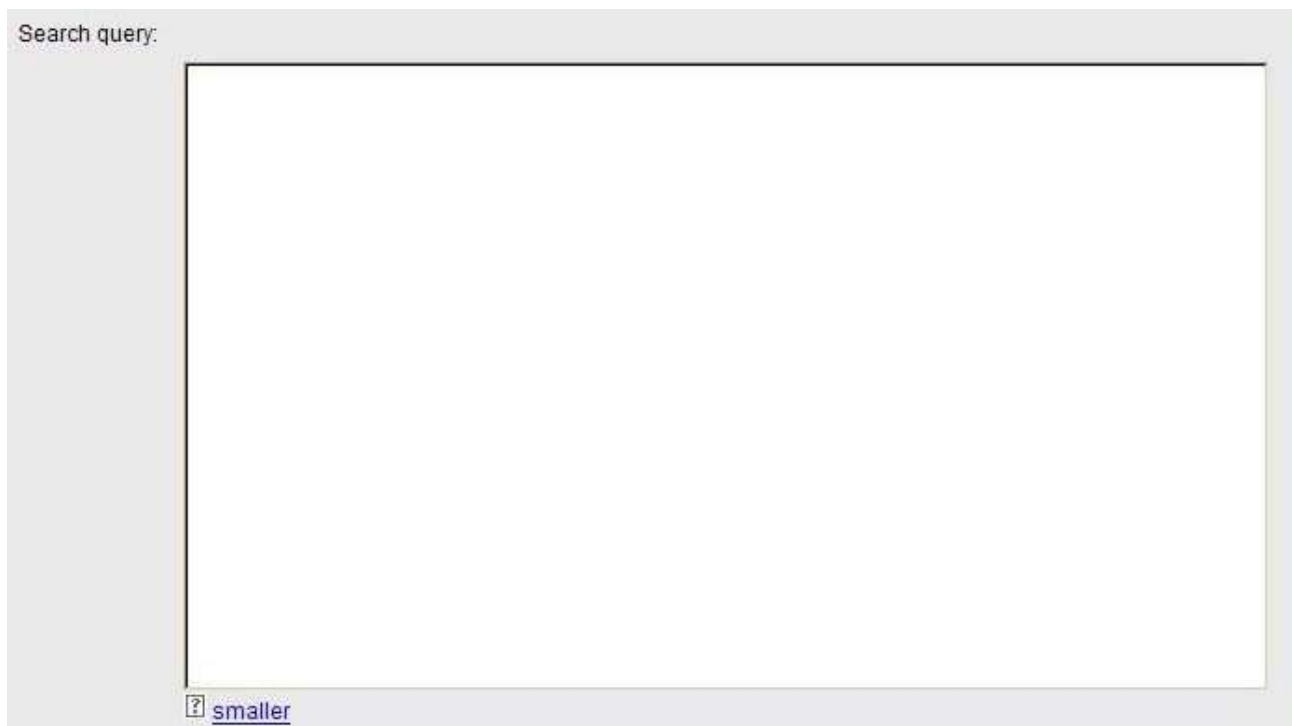
MICHAEL

In this form, you can specify the search zone, you can select a predefined query or type a new query, you can select an XSLT transformation to format the results, and you can select the type of output. All these concepts are defined and explained below.

If you want to select a predefined XQuery, this query must be in the `/XQuery` folder in the database or in the `/XQuery` sub-folder within your home folder. It must also be in the specific MICHAEL format for XQuery, the simplest way is to use the forms to create one (see below). To select one, just use the *Predefined query* drop-down-list at the top of the form.

If you prefer to type a new query, then the next part of the form will be used. First, you will specify the search zone (folder) with the *Path* drop-down list. You can either select the root folder or the current folder. In all cases, the actual search zone will be the folder select and all its sub-folders, recursively.

You can type your XQuery in the *Search query* text box. If you need more space than this simple text box, click on the *bigger* link and you will then have a full text area such as:



Search query:

[?](#) smaller

Some XQuery examples are provided later in this document.

The result of an XQuery is generally in XML. If you would like to process this XML with an XSLT transformation to create another XML output or HTML, you can provide your own XSLT file by typing the URL of this XSLT in the *XSLT transformation* text box; this URL must be available for the server. You must also select the type of output for your XSLT transformation, either XML or HTML, with the appropriate radio buttons.

If you do not provide an XSLT transformation, you can instead select the output type between *Xdepo navigation*, *XML Xdepo*, *XML raw* and *Xdepo stylesheet*.

The *Xdepo navigation* output type will give standard results to be browsed in HTML, with one row per document found. This may be appropriate for queries resulting in complete documents.

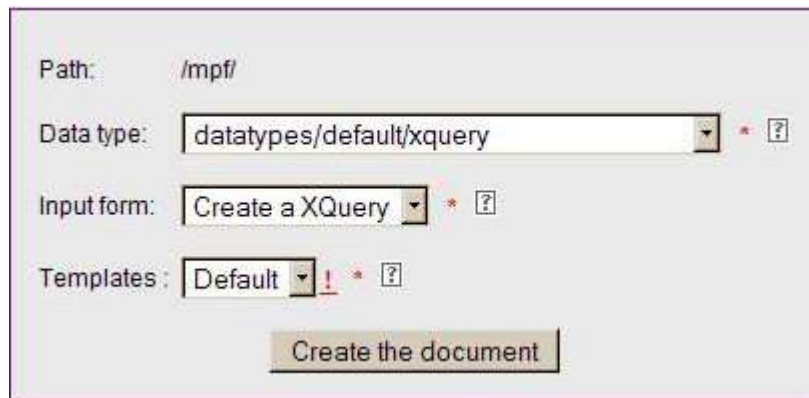
The *XML Xdepo* output type will give you the XML used by Xdepo to build the navigation. It contains the XML output of your XQuery surrounded by context information.

The *XML raw* output type will return the exact XML created by your query.

Store and reuse an XQuery

The MICHAEL production module provides a user interface to create a XQuery and to store it in the database. It can be reused later, for modification or more probably execution. This user interface is built with a specific datatype built into the engine: *xquery*. A related form is also provided. This is why you can create such an XQuery anywhere in the database, using standard mechanism to add a document.

To create an XQuery, click on the *Add document* button in the folder where you want to put your XQuery. Then, in the *Choose datatype* form, select these values:



Path: /mpf/

Data type: datatypes/default/xquery * ?

Input form: Create a XQuery * ?

Templates: Default ! * ?

Create the document

Once you click on the *Create the document* button, you will get the specific form to build an XQuery, such as this one:

Complete name ⊕

Titre de la XQuery * ? fr * ?

XQuery title * ? en * ?

Path: / * ?

XQuery

XSLT transformation: Parcourir... ?

Out: xml * ?

Number of parameters parameters: 0 ?

Output type: Xdepo navigation XML Xdepo XML raw Xdepo Stylesheet ?

Save

This form is very similar to the one used to execute an XQuery (see previous version). You will find the name of the XQuery, the location where to execute it, the XQuery itself, and the type of output. The document you will create with this form is an XML document, containing all the information you provide. You can manage this document within the database as any other document.

The complete name of the XQuery is the name used to select it when you will run it. You can provide many names in different languages.

The *path* is the folder where you want to execute the query. Only documents in this folder and its sub-folders will be considered in the query execution.

You can provide an XSLT transformation to process the output of your XQuery with the *Browse...* button. This XSLT transformation must be available on your computer for uploading in the database. If you provide such as transformation, you must specify the type of output, a choice between XML and HTML.

The *Query* text area is for the XQuery itself. You can type in the XQuery you want to execute. If you include in your XQuery special strings such as `param_0:#`, `param_1:#`, etc., they will be replaced at execution time by parameters provided by the user with a special form. This is very useful to create a basic XQuery that can be reused with specific options. If you are using parameters in the XQuery, you must enter the number of parameters when you create it.

Finally, output types bear the same meaning as when you execute a query (see before).

Once you click on the *Save* button, the document will be stored in the database.

XQuery examples

Records with comments

This simple example finds records with at least one character in the comments for the records:

```
/*/metadata[comment[normalize-space(.)!=' ']]
```

This is close to an Xpath query but it still works with the XQuery engine. If you select *Xdepo navigation* as an output type, you will get standard search results.

Records modified since

The following query will find records modified since 40 days:

```
xquery version "1.0";
let $date := number(40)
return
/*/metadata[modification-date[days-from-duration(current-date() - xs:date
(xs:dateTime(.))) < $date]]
```

For instance, if you select *Xdepo XML* as an output type, you will get this:

```
<xdepo:results>
  <xdepo:result>
    <metadata>
      <creation-date>2005-06-08T13:46:47</creation-date>
      <modification-date>2005-06-08T13:46:47</modification-date>
      <update>2005-06-08</update>
      <agent code="msevigny"></agent>
      <rights>Licenced under the Creative Commons Licence#13;
(http://creativecommons.org/licenses/by-nc-sa/2.0/uk/)</rights>
      <language code="en"></language>
      <record-status code="valid"></record-status>
    </metadata>
  </xdepo:result>
  <xdepo:result>
    <metadata>
      <creation-date>2005-06-14T12:41:44</creation-date>
      <modification-date>2005-06-14T12:41:44</modification-date>
      <update>2005-06-14</update>
      <agent code="kfernier"></agent>
      <rights>Licenced under the Creative Commons Licence#13;
(http://creativecommons.org/licenses/by-nc-sa/2.0/uk/)</rights>
      <language code="en"></language>
```

```
    <record-status code="draft"></record-status>
  </metadata>
</xdepo:result>
</xdepo:results>
```

This output shows the the MICHAEL production engine outputs a root element named `xdepo:results` for general information about the query execution, and one `xdepo:result` element for each result in order to be able to contextualize it.

List of titles

Here is an example of a query that will return all the digital collection titles and will sort them in alphabetical order. The title will be displayed, or better structured in the output XML:

```
<documents>
{
  for $title in /digital-collection/identification/title
  order by $title
  return $title
}
</documents>
```

The output could be this one (namespace declarations have been omitted and the list of titles is truncated):

```
<?xml version="1.0" encoding="UTF-8"?>
<documents>
  <title>ARKive</title>
  <title>Aberdeen Art Gallery and Museums explorer</title>
  <title>About Medway</title>
  <title>Act of Union Virtual Library</title>
  ...
</documents>
```

We may also use the raw XML output type in order to process the result and get an HTML result. Here is an example XSLT transformation that does this:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
  xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
>
  <xsl:template match="documents">
    <html>
      <head>
        <title>Liste of titles</title>
      </head>
      <body>
        <h1>Liste des documents avec un titre en français</h1>
        <ol>
          <xsl:apply-templates/>
        </ol>
      </body>
    </html>
  </xsl:template>
  <xsl:template match="title">
    <li><xsl:apply-templates/></li>
  </xsl:template>
</xsl:stylesheet>
```

The results would be something like:

List of titles

1. ARKive
2. Aberdeen Art Gallery and Museums explorer
3. About Medway
4. Act of Union Virtual Library
5. Advicenow
6. Age Concern Bradford
7. Age Concern Camden
8. Age Concern Dudley
9. Age Concern Gateshead

Using MICHAEL shortcuts

2005-05-24 / 2005-06-16

Sévigny, Martin (AJLSM, France)

The production module is designed in a very flexible way, in order to let cataloguers create exactly the records they want when they have the information. It is expected that at some time the module will implement more specific ways of managing data, in order to ease the process of creating records or to implement more specific permission management rules.

But the module already has some basic functionalities helping cataloguers do their work. Some are already identified in other parts of this documentation:

- The user's [personal homepage](#) gives direct access to common task of creating and finding records.
- [Users and groups](#), along with [resource permissions](#), can be used to restrict the access to some records or folders.
- Links to records can be checked or easily found with direct access to [link checking functions](#).

In this document, we will describe more specific functions that will help manage MICHAEL data.

Linking a digital collection record to an institution

The production module proposes an easy to use shortcut in order to link a digital collection record to an institution record in the database. In order to do so, you must first browse to the folder containing the relevant institution record.

Then, on the right of the institution name, you will find a drop-down list with specific shortcuts, such as this one:



If you select the *Add a digital collection* entry in the list, you will open a form to create a new digital collection (in the default folder for digital collections). This form will be the standard one, but in the relation screen, you will have something such as:

Target of the relation:

Role of the relation:

We see that the institution identifier is already in the form, without having to select it.

Viewing the record from the publishing module

Sometimes, it can be interesting to view a record as it is displayed in the publication module. The production module provides an easy way to do this, by using the shortcut drop-down list on the right of each MICHAEL record in the database.

Here is an example of this list:



When a user select the *View in publishing module* entry in the list, a new window opens and the record is displayed from the associated publishing engine, in its standard format. If you have made modification to the record without publishing it, you won't see these modifications though; the record is displayed as it was the last time it has been published. If you want to preview your modifications, you should click on the document's title.

Validating a record

Records in a MICHAEL database can have two status: draft and valid. When you create or modify a record, you can set the status of the record in the form's last page (*System metadata and local data*), but only if you are a member of the `validators` group; if not, you will only be able to create and modify draft records.

Before publishing a document, records must be valid. The MICHAEL production module provides an easy way to change the status of a record to *Valid*: you just click on the corresponding entry in the drop-down list to the right of any draft record, such as in this figure:



Once you do this, the record is modified as if you had modified it by hand with the corresponding form, the only change being its status. The previous figure shows that there is also an entry in the list for validating then publishing the document. This entry will initiate the same validating process as the *Validate* entry, but it will be followed by a second step consisting of publishing the record. This action explained [elsewhere in this documentation](#).

Publishing records

2005-05-24 / 2005-06-16

Sévigny, Martin (AJLSM, France)

The MICHAEL platform uses a clear separation between the production and the publication of records. Two separate modules handle these general tasks. Of course, at some point, it is needed to publish a record newly created or modified in the production module, and this document explains how to do this.

The act of publishing makes the record visible in the public interface. You should do this only when you think that the record is good enough to be seen by the public. Also, only users members of the group `validators` can publish records.

Can a record be published?

Not all records can be published, there are some constraints; the aim of this section is to list these constraints.

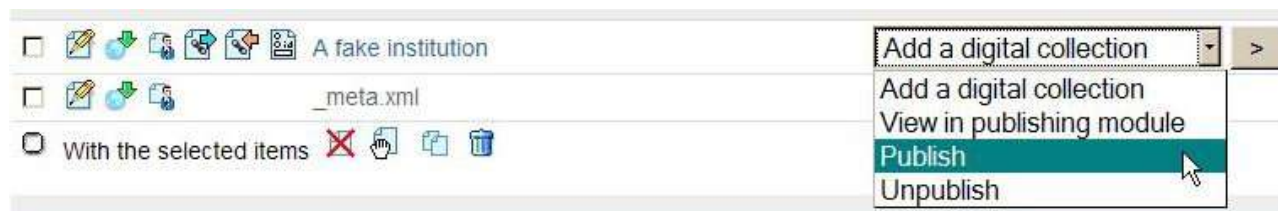
Valid records

Only valid records can be published. It means that the record status, in its metadata, must be set to *Valid*. The MICHAEL platform provides easy [shortcuts to validate a record](#), and the record status can also be set in the record's data entry form.

Only the users members of the group `validators` can validate a record in order to publish it.

Publishing a single record

If you want to publish a single record, you must browse to the folder containing the record and then use the *Publish* entry in the drop-down list on the right of the document, such as in this figure:



You need to click on the arrow in order to start the process. Results of the publishing action will be discussed later in this document.

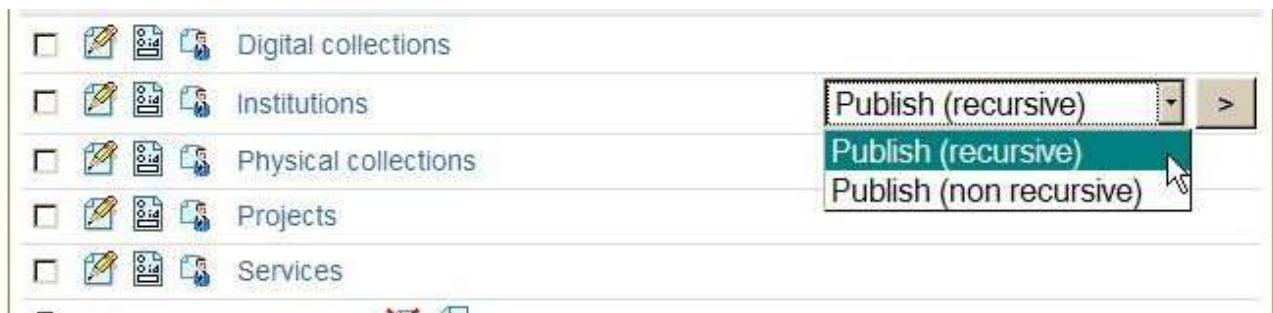
In some cases, you will want to validate a draft record and then publish it. The system provides a shortcut to do this, as explained before:



Once the record is validated, it is automatically published. This action gives exactly the same result as if you were to validate and then publish the document in two steps.

Publishing a folder

It is also possible to publish the whole content of a folder. To do this, browse to the parent folder of the folder you want to publish, and select the appropriate action in the drop-down list on the right of the folder name:



There are two actions available: one to publish the content of the folder and the content of all its sub-folders, recursively, and the other one to only publish the records in the folder (non recursively). These actions will be available only if the folder contains some valid records; otherwise you won't see the drop-down list and its entries.

Results of the publishing process

The results of publishing one or many documents are currently displayed in a rather technical format, such as this window:

```

<sdx:document xml:lang="fr" server="http://localhost:8085/michael"
api-url="http://localhost:8085/michael/sdx/api-url" app="org.michael-culture.mpf.fr"
appbypath="pub-fr" uri="http://localhost:8085/michael/pub-fr/upload-test.xsp"
query="?uri=/mpf/records/institution/mh/national" version="2.3-rc1" build="2005050201"
date="Fri Jun 10 20:30:06 CEST 2005">
- <sdx:uploadDocuments>
  - <sdx:deletion>
    <sdx:document id="FR-IN-MHN01" repo="xdepo" base="docs"
    app="org.michael-culture.mpf.fr" mimetype="text/xml" byte-length="-1"/>
  </sdx:deletion>
  - <sdx:deletion>
    <sdx:document id="FR-IN-SAP01" repo="xdepo" base="docs"
    app="org.michael-culture.mpf.fr" mimetype="text/xml" byte-length="-1"/>
  </sdx:deletion>
  <sdx:summary additions="2" failures="0" duration="4"/>
</sdx:uploadDocuments>
<sdx:user anonymous="true" ip="127.0.0.1" host="127.0.0.1"/>
- <sdx:parameters>
  <sdx:parameter type="get" name="uri" value="/mpf/records/institution/mh/national"
  escapedValue="%2Fmpf%2Frecords%2Finstitution%2Fmh%2Fnational"/>
</sdx:parameters>
</sdx:document>

```

This is a raw XML file with details on deleted documents and added documents. At some time, the result will be formatted for human consumption.

The information provided is the list of documents that have been deleted (because they are replace) and a summary of documents added (number of documents, number of errors, and duration in seconds). Once you get this window, you can close it to continue your work.

Unpublishing a document

Sometimes it may be needed to remove a document from the publishing module. To do so, you must browse to the folder containing the document, and then click on the *Unpublish* entry in the drop-down list on the right of the record title:



Once selected, you should click on the arrow next to the drop-down list to initiate the action. The results will be displayed in a similar window than the results of the publishing action, such as this one:

```
<sdx:document xml:lang="fr" server="http://localhost:8085/michael"
api-url="http://localhost:8085/michael/sdx/api-url" app="org.michael-culture.mpf.fr"
appbypath="pub-fr" uri="http://localhost:8085/michael/pub-fr/delete.xsp"
query="?id=FR-IN-mauriac" version="2.3-rc1" build="2005050201" date="Fri Jun 10 20:36:06
CEST 2005">
- <sdx:deletions app="org.michael-culture.mpf.fr" base="docs">
  - <sdx:deletion>
    <sdx:document id="FR-IN-mauriac" repo="xdepo" base="docs"
    app="org.michael-culture.mpf.fr" mimetype="text/xml" byte-length="-1"/>
  </sdx:deletion>
  <sdx:summary deletions="1" failures="0" duration="0"/>
</sdx:deletions>
<sdx:user anonymous="true" ip="127.0.0.1" host="127.0.0.1"/>
- <sdx:parameters>
  <sdx:parameter type="get" name="id" value="FR-IN-mauriac"
  escapedValue="FR-IN-mauriac"/>
</sdx:parameters>
</sdx:document>
```

Administrating a MICHAEL instance and its content

2005-04-04 / 2005-06-16

Some functionalities are limited to specific users, and we group them into the administrative tasks. For now, these administrative tasks are documented:

- [Managing users and groups](#)
- [Managing lists](#)
- [Importing and exporting content](#)
- [Backup and restore of a database](#)

Users and groups

2005-04-04 / 2005-06-16

In order to create or modify content in a MICHAEL instance, one needs to login using a username and a password. A user belongs to one or more groups. Permissions on resources (folders, records) can be set to either groups or users. So users and groups form the basis of access management in a MICHAEL instance.

In this document, you will learn what are the important groups in a MICHAEL installation, how to add, delete or modify a user account, and how to modify the group membership of a user.

Groups

Groups are the building blocks of access management in a MICHAEL instance. The next table lists the standards groups defined in the platform.

Name	Description
dba	Database administrators. Before putting a user in this group, please make sure you understand the consequences. This group has access to all data and all functionalities.
xquery	Standard group for users who can execute an Xquery on data. All users should be a member of this group in a MICHAEL instance.
xupdate	Standard group for users who can execute Xupdate on data. All users should be a member of this group in a MICHAEL instance.
list-managers	A group for users who can change the content of lists or add new lists.
editors	Members of this group can create and edit records, but not validate them.
validators	Members of this group can validate a record.

Other groups can be created, but these groups should be kept in all MICHAEL instances. Other standard groups may be defined in a future version.

Creating a user

Only members of the group `dba` can create new users. When they browse the content of the database, these users will see a function bar at the bottom of each page. This function bar looks like this one:

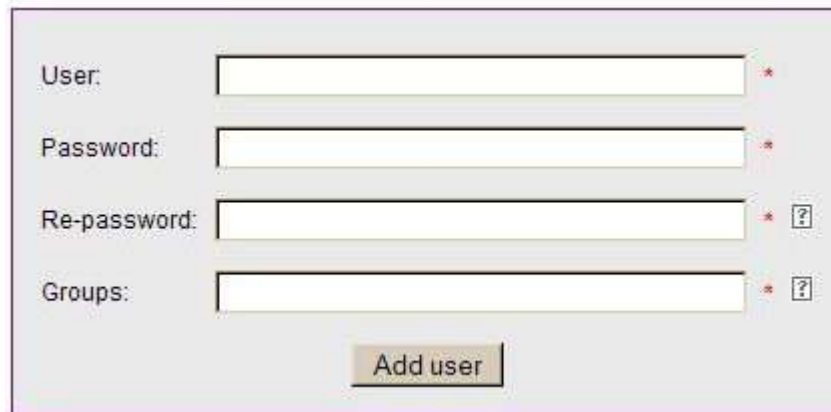


To create a user, click on the *Users* button. You will see a form such as this one:



User: * ?

To create a user, click on the *Add an user* button. You will see this form:



User: *

Password: *

Re-password: * ?

Groups: * ?

To create the user, you need to enter four informations:

- 8 The username: it should be simple, without spaces and only with ASCII characters.
- 9 The password: it should have at least six characters.
- 10 The password a second time: to confirm the first one.
- 11 Groups: the groups the user should be member of.

The important information here is the groups. The first group should be the main group of the user, and then there can be any other group the user can be part of.

For a normal user who can edit content, you should enter `editors,xquery,xupdate` but for a user who can validate records, you should enter `editors,validators,xquery,xupdate`. The comma is used as a separator for group names. If a group doesn't exist, it will be created automatically.

Deleting or modifying a user

Only members of the group `dba` can delete or modify existing users. You do so by clicking on the Users button in the function bar:



You will get a user management form such as this one:



User: * ?

To delete a user, select the user in the drop-down list and then click on the *Remove a user* button.
To update a user password, click on the *Update a user password* button. You will get this form:

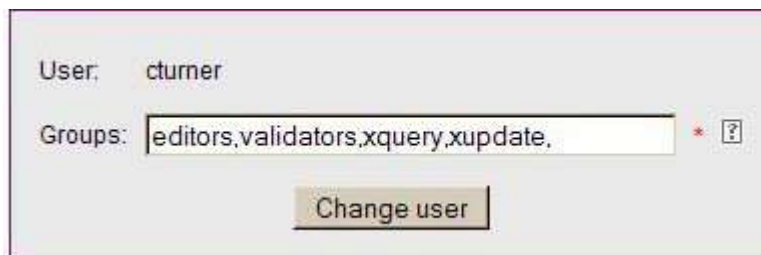


User:

Password:

Re-password: * ?

To change the password, just type the new password twice.
To update the user's groups, click on the *Update user groups* button. You will get this form:



User:

Groups: * ?

You may enter the list of groups, separated by a comma.

Managing lists

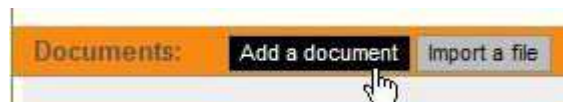
2005-05-22 / 2005-06-16

Lists contain coded and labelled values and are used in forms in order to help users select values instead of writing them. In a MICHAEL instance, lists are stored in a special folder at the root, called *Lists*. The platform provides some help in order to create and manage lists.

All functionalities described below are available to users members of the group `list-managers`.

Creating a list

Please note that newly created lists are not used in the forms unless these forms are configured to do so. To create a new list, you must go through the standard process of creating a document. Anywhere in the data base, you can click on the *Create a document* button:



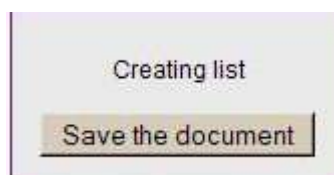
Then you will get a form, where you can select the `datatypes/default/list` datatype and the following form and templates:

A screenshot of a form for creating a document. The form has the following fields:

- Path: `/mpf/records/service/`
- Data type: `datatypes/default/list` (dropdown menu)
- Input form: `Create a list` (dropdown menu)
- Templates: `Default` (dropdown menu)

Each dropdown menu has a red asterisk and a question mark icon to its right. At the bottom of the form is a button labeled 'Create the document'.

Once you click on the *Create the document* button, you will be asked to confirm the saving of the list:

A screenshot of a confirmation dialog box. The dialog has a title 'Creating list' and a button labeled 'Save the document'.

Click on the *Save the document* button, and then you will be asked for the identifier:

Write a unique identifier for your list and then click on the *Create the identifier* button. The list will be created, and you will be back to browsing. To add items in the list, please follow the next section.

Modifying list contents

A list contains item. An item must have unique code and one or more labels or values. A label has a language. To modify the items of a list, browse to the Lists directory at the root of the database, and then click on the Edit icon in front of the appropriate list:



Once this is done, you will get a form like this one:

To update an item, select it in the drop-down list at the top, and then you can either modify the values, add a value or remove the item. To add a new item, type in a code and at least one value (with its associated language). To change the order of items, click on the *Organize your items* link. You will get this form:

You can use the drop-down list to select an item (by its code) and to move it before or after another item.

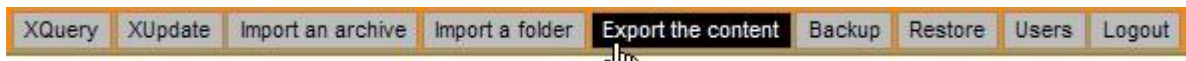
Importing and exporting contents

2005-05-22 / 2005-06-16

Content in a MICHAEL instance can be created using forms, but it can also be imported. For now, importing is limited to XML content following the MICHAEL schema. On the other end, content can also be exported as XML files. These importing and exporting features may be used, for instance, in order to statically exchange content between servers.

Exporting contents

The user must be a member of the `dba` group in order to export content. To export the content of a specific folder, browse to this folder and then click on the *Export the content* button in the function bar at the bottom:



You will then get a form like this one:



Path: *

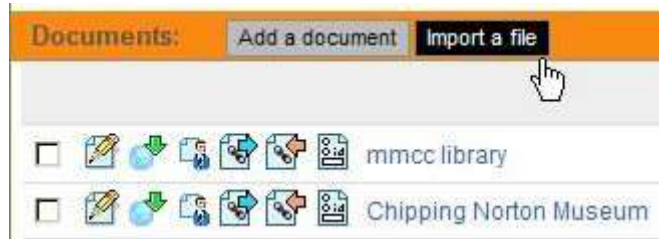
Name to export: * ?

The first field let you specify the folder to export; it will be prewritten with the current folder. Then you can write the name of the export file, such as `export-20050523`. Once this is done, you click on the *Export this folder* button and you will receive an archive in `.tar.gz` format. This archive can be kept or imported in another MICHAEL instance.

Importing contents

Importing a single document

In order to import a single XML document, first you should browse to the folder where you want to put the file. Then you must click on the *Import file* button next to the header for the list of documents in the viewer:



You will then get this form:

To import a file, you just have to click on the *Browse...* button and then select it from your computer. Once this selection is done, you click on the *Import this file* button and the file will be copied into the MICHAEL database.

You can import any file from your hard disk using this mechanism. In some circumstances, this action may not work:

- If the file size is larger than the maximum file size allowed by the server during upload operations. This limit depends on the server configuration but it is in general less than 10MB.
- If it is an XML document, the document must be well-formed and if it linked to the DTD, this DTD must be accessible to the server at the URL specified in the document or in a catalog file set up by the system administrator.

Please note that this is a simple solution to upload binary files such as images into the database.

Importing an archive

The user must be a member of the `dba` group (system administrators) in order to import content. To import the content of an archive, browse to the folder where you want to put the imported content and then click on the *Import an archive* button in the function bar at the bottom of the page:



You will then see a form like this one:

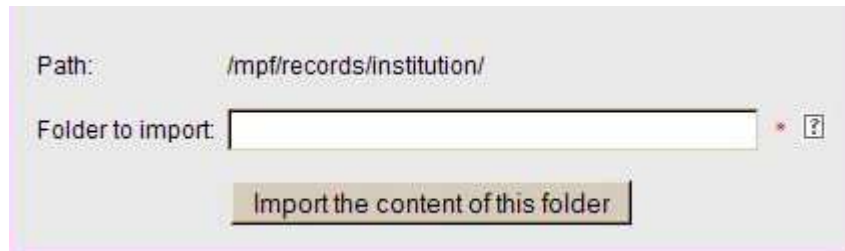
MICHAEL

You can then use the *Browse...* button to select the file on your computer. The file must be either a ZIP file or TAR/GZIP file. Once the file is selected, you may start the import using the *Import this archive* button.

Once again, if the file size is larger than the limit for uploading documents on the server, this operation won't work. This limit is often less than 10MB.

When you import an archive, the folder structure inside your archive will be kept and transformed as corresponding folders within the database.

You can also import a folder located in the directory structure of the server. To do so, you must click on the *Import folder* button in the toolbar, and you will get this form:



The screenshot shows a web form for importing a folder. It has a label 'Path:' followed by the text '/mpf/records/institution/'. Below that is a label 'Folder to import:' followed by an empty text input field. To the right of the input field is a small red asterisk and a question mark icon. Below the input field is a button with the text 'Import the content of this folder'.

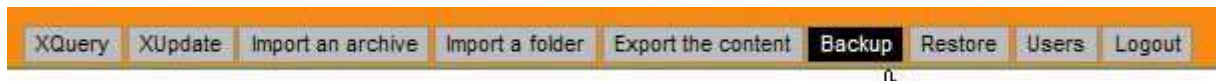
The test box lets you specify the complete path of the folder to import. Once again, the folder structure will be kept and transformed as corresponding folders in the MICHAEL database.

Creating a backup and restoring a database

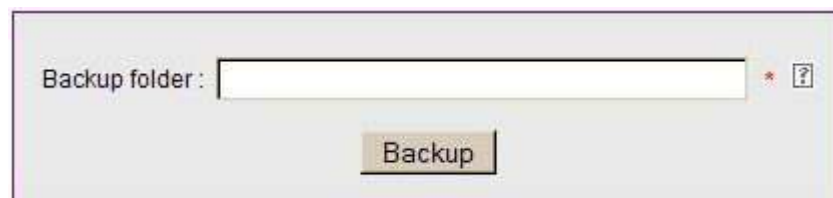
2005-05-24 / 2005-06-16

The backup – and following restore – of a MICHAEL database is accessible only to system administrators (members of the `dba` group). It will let you create an archive of the database, in a special format, and then to restore this archive.

To initiate a backup, click on the *Backup* button in the toolbar:



Once you click on it, you will get this form:

A light gray rectangular form. At the top left, it says 'Backup folder:'. To the right of this text is a white text input field. To the right of the input field are a red asterisk and a question mark icon. Below the input field is a button labeled 'Backup'.

You must type the complete path of a directory on the server where the backup content will be put. Once the backup is completed, you will get an image of your database in this directory, and some instructions to restore the content.

To restore a database from a backup, you need to click on the *Restore* button in the toolbar:



You will then get a form like this one:

A light gray rectangular form. At the top left, it says 'Restore folder:'. To the right of this text is a white text input field. To the right of the input field are a red asterisk and a question mark icon. Below the input field is a button labeled 'Restore'.

In the text box, you need to type the complete path of the main backup file, on the server. This file is always named `__contents__.xml` and have been created by a backup procedure. To start the restore operation, click on the *Restore* button.

Please note that everything will be restored, including users and groups, the passwords, etc.