

# Einführung zum MOD-CO Project Workflow

Pipeline to create, manage and publish the MOD-CO schema and vocabularies

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# MOD-CO Schema: Management in MS Excel

- MS Excel-Tabellen, verteiltes Arbeiten, Koordination nicht immer einfach

The image displays two overlapping Microsoft Excel spreadsheets. The top spreadsheet, titled '20150714\_MODCO\_full\_schema\_levels\_DD3.xlsx', shows a table with the following data:

ID	Elementary steps/Specifics	Descriptor	Attribute	Descriptor	Explanation
1		unit identifier	<identity>:	unit identifier <identity>:	The identifier has to be unique for each unit. The identifier can also be the core identification of a processing unit ID chain. Numeric or alphanumeric characters are acceptable
2		unit parent – child	<relation>:	unit parent – child <relation>:	Parent-child relationships between units should be explicitly stated

The bottom spreadsheet, titled 'modco\_dwbC\_mapping.xlsx', shows a table with the following data:

MOD-CO	Definition	dwbCollection
#2. [0] - data record agent identifier <ID>/	Identification number for the person (collector, technician, researcher) or institution (in case of	http://diversityworkbench.net/AgentURI
#3. [0] - data record agent <name>/	Name of the person (collector, technician, researcher) or institution (in case of transactions) that was responsible	http://diversityworkbench.net/AgentName
#4. [0] - data record creation date <value>/	Creation date of the unit data record	NA
#5. [0] - data record creation time <value>/	Creation time of the unit data record	NA
#6. [0] - data record previous change date <value>/	Last change date of the data record	NA
#7. [0] - data record previous change time <value>/	Last change time of the data record	NA

# MOD-CO Schema: Importe nach DD

- Importschemas, Importe und Nachimporte nach DiversityDescriptions (DD)

**Import descriptor data**

Column headers: **hidden**

File: C:\Users\Link\Desktop\DiversityWorkbench\DiversityDescriptions\Import\MOD-CO\20150714\_MODCO\_full\_schema\_levels\_1...  
 Encoding: ANSI Start line: 2 End line: 12  
 First line contains column definition Language / Country: US

**Schedule for import of tab-separated text files into DiversityDescriptions**  
 Target within DiversityDescriptions: **Descriptor**  
 Schedule version: 1 Database version: 03.00.14  
 Lines: 2 - 12 First line contains column definition:   
 Encoding: ANSI Language: US

**Tables**

**Descriptor (Descriptor)**  
 Merge handling: **Insert**

Column in table	Key	Copy	Pre	Post	File pos.	Transformations	Value	Source	Table
id					0			File	
label	?				4			File	
detail					7			File	
					8	Definition:  Explanation:		File	
					9	 Example:		File	

ID	Elementary st..	Descriptor	Attribute	Descriptor	Field type	Choice list	Definition	Explana
1		unit identifier	<identity>:	unit identifier <...	text		A unique iden...	The ider
2		unit parent - c...	<relation>:	unit parent - c...	text		Parent-child r...	Parent-c
3		unit parent - c...	<identity>:	unit parent - c...	text		A unique iden...	This ider
4		unit	<class>:	unit <class>:	choice	physical, digital	Type of the u...	Physical
5		original unit id...	<identity>:	original unit id...	text		A universally ...	A UUID
6		unit partition r...	<presence>:	unit partition r...	choice	absent, prese...	Elementary d...	Followin
7		unit treatment ...	<presence>:	unit treatment ...	choice	absent, prese...	Elementary d...	Followin
8		unit data app...	<presence>:	unit data app...	choice	absent, prese...	Elementary d...	Followin

# MOD-CO Schema: Management in DD

- Management in DD (→ Demo A. Link)

The screenshot displays the DiversityDescriptions software interface, version 3.0.1.22, with the database set to DiversityDescriptions\_MODCO. The main window shows the MOD-CO project details, including the project name 'MOD-CO' and ID '1024113'. The 'Descriptor tree' tab is active, showing a hierarchical structure of descriptor levels. The tree is organized into two levels: Level 0 and Level 1. Level 0 contains various attributes such as 'data record agent identifier', 'data record agent name', 'data record creation date', 'data record creation time', 'data record previous change date', 'data record previous change time', 'unit primary status', 'internal unit identifier', 'parent unit identifier', 'origin unit identifier', 'external unit identifier', 'unit elementary type', 'unit processing date', 'unit processing time', 'unit processing agent identifier', 'unit processing agent name', 'elementary operational procedure domain', 'procedural device status', and 'procedural device elementary type'. Level 1 contains attributes such as 'physical unit agent name', 'physical unit agent ID', 'physical unit elementary type', 'physical unit origin location name', 'physical unit origin location latitude', 'physical unit origin location longitude', 'physical unit origin location altitude', and 'physical unit origin location depth'. The interface also includes a 'Query results' pane on the left showing 'MOD-CO' and 'Ruma Test', and a 'Query conditions' section at the bottom left with filters for 'Project', 'Title', 'DWB', 'Parent pres.', 'Descriptor tree', and 'Description'. The 'Language' is set to 'en'.

# Exporte von MOD-CO-Datenbank-Inhalten

- Exporte von Datenbank-Inhalten aus ‚descriptors‘ und ‚states‘ als generische SQL-Funktion (a) HTML und (b) Semantic Media Wiki

The screenshot shows the 'Generate document' window with the 'HTML' and 'Semantic Media Wiki' tabs selected. The 'Entities in database' list on the left includes 'MOD-CO' (checked) and 'Ruma Test' (unchecked). The main area displays the generated XML code for the 'MOD-CO' entity. The XML is an RDF document with a namespace for 'modco' and a title 'data record agent name (1)'. It includes a revision timestamp and a text block containing a label and definition. The text block is followed by several concept relations, each with a specific 'relation=skos: collection' and an 'internal page' reference. The XML ends with a 'dwb\_Descriptor' block containing mapping and resource links.

```
<?xml version="1.0" encoding="utf-16"?>
<mediawiki xmlns="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" version="0.3"
xml:lang="en" xmlns="http://www.mediawiki.org/xml/export-0.3/">
<page>
<title>modco:(0)-data record agent name (1)</title>
<revision>
<timestamp>2017-03-09T12:48:10.6351786+01:00</timestamp>
<text>{{Concept
label=(0) - data record agent &lt;it.name&gt;
!definition=Name of the person (collector, technician, researcher) or institution (in case of transactions) that was responsible for creation of the data
record
!notes=Key
!concept type=class
}}
{{Concept scheme relation
!scheme=MOD-CO
!property cardinality=1..1
}}
{{Concept relation
!relation=skos: collection
!internal page=modco:Descriptor levels.Level 0 (1)
}}
{{Concept relation
!relation=skos: collection
!internal page=modco:Omics classes.(Meta-)proteomics (1)
}}
{{Concept relation
!relation=skos: collection
!internal page=modco:Elementary operational domains.Data generating (1)
}}
{{Concept relation
!relation=skos: has close match
!uri=http://diversityworkbench.net/Portal/dwbC:TransactionAgent.AgentName
}}
{{dwb_Descriptor
!order=1
!mandatory=M
!type=text
!mapping links=[http://diversityworkbench.net/Portal/dwbC:TransactionAgent.AgentName DiversityCollection: TransactionAgent - AgentName]
!resource links=[http://www.bgbm.org/TDWG/CODATA/Schema/ABCD_2.06/HTML/ABCD_2.06.html#element_Name_Link031A7AC8 ABCD_2.06
-element_Name_Link031A7AC8]
}}
</text>
</page>
</mediawiki>
```

At the bottom of the window, there are controls for generating the document. The 'Generate' dropdown is set to 'XML'. The 'Naming' options are 'Opt. order', 'Order' (selected), 'Entity ID', and 'Cardinality'. The 'Prefix' is 'modco' and the 'Scheme' is 'MOD-CO'. There is a 'Create the SMW documents' button and a 'Descriptor tree' dropdown set to 'Include trees'.

# Publikation des MOD-CO Schema, Versionierung (ToDo)

- Publikation wird fixiert als eine HTTP-Seite mit kompletter Information; z.B. die MOD-CO Schema Version 1.0 als ... /mod-co-schema\_1.0

## Import pages

Upload XML data

Please export the file from the source wiki using the [export utility](#). Save it to your computer and upload it here.

Filename:  modco.xml

Comment:

### Testing area

This "sandbox" page is to allow you to carry out experiments. Please feel free to try your skills at formatting here.

To edit, click *Edit* at the top of the page, make your changes in the dialog box, and click the "Save page" button when you are finished. Please do not add material that

**Project: MOD-CO**

**Descriptor trees**

**Alternative descriptor tree [ID:0001025414]**

**Default descriptor tree [ID:0001025120]**

**Level 0**

- [2]: [0] - data record agent identifier <ID>
- [3]: [0] - data record agent <name>
- [4]: [0] - data record creation date <value>
- [5]: [0] - data record creation time <value>
- [6]: [0] - data record previous change date <value>
- [7]: [0] - data record previous change time <value>
- [9]: [0] - unit primary status <presence>
- [10]: [0] - internal unit identifier <ID>
- [11]: [0] - parent unit identifier <ID>
- [12]: [0] - origin unit identifier <ID>
- [13]: [0] - external unit identifier <ID>
- [15]: [0] - unit elementary type <class>
- [16]: [0] - unit processing date <value>
- [17]: [0] - unit processing time <value>
- [18]: [0] - unit processing agent identifier <ID>
- [19]: [0] - unit processing agent <name>
- [21]: [0] - elementary operational procedure domain <class>
- [22]: [0] - procedural device status <presence>
- [23]: [0] - procedural device elementary type <class>

### Descriptors

[2]: [0] - data record agent identifier <ID>	
Details	Identification number for the person (collector, technician, researcher) or institution (in case of transactions) that was responsible for creation of the data record
Type	text
Attributes	<b>mandatory</b>
Links	<a href="#">ABCD_2.06 - element_URIis_Link02059EA8</a> <a href="#">DWB-DC: TransactionAgent - AgentURI</a>
[3]: [0] - data record agent <name>	
Details	Name of the person (collector, technician, researcher) or institution (in case of transactions) that was responsible for creation of the data record
Type	text
Attributes	<b>mandatory</b>
Links	<a href="#">ABCD_2.06 - element_Name_Link031A7AC8</a> <a href="#">DWB-DC: TransactionAgent - AgentName</a>
Notes	Key
[4]: [0] - data record creation date <value>	
Details	Creation date of the unit data record
Type	text
Attributes	<b>mandatory</b>
Links	<a href="#">ABCD_2.06 - element_DateLastEdited_Link0315DD80</a>
[5]: [0] - data record creation time <value>	
Details	Creation time of the unit data record
Type	text
Attributes	<b>mandatory</b>
Links	<a href="#">ABCD_2.06 - element_DateLastEdited_Link0315DD80</a>
[6]: [0] - data record previous change date <value>	
Details	Last change date of the data record
Type	text

# Publikation des MOD-CO Schemas als SMW-Repräsentation (ToDo)

- Einzelne “Concepts” in der SMW-Repräsentation können weiter inhaltlich über DD-Exporte modifiziert werden, auch zwischen den publizierten Versionen (page history)
- Management des Schemas nach Abschluss des MOD-CO Projektes weiter in DD
- Standard-Excel-file(s) für Importe?

Page [Discussion](#)

## modco:(0) - unit processing date value (1)

**(0) - unit processing date** <value>: Date of physical or digital unit elementary procedural step. The date refers according to ISO 8601 specification, i.e. YYYY-MM-DD

Constraints in the context of [Meta-omics\\_data\\_of\\_collection\\_objects](#):

- **cardinality** 0..1 (=optional single occurrence)

**Display order:** 16

**Mandatory:** -

**Data type:** text

**Resource links:** [GGBN - amplificationDate](#) [DWB-DC: CollectionSpecimenProcessing - ProcessingDate](#)

Classes: [Class](#) | [Concept](#) | [Meta-omics data of collection objects](#)

This page was last modified on 10 March 2017, at 11:39.

# Danke

- Derzeit ist MOD-CO Schema noch in Terminology Sandbox.
- Anregungen sind willkommen.

## biowikifarm Terminology Sandbox



Terminology Platform

Page [Discussion](#)

### Meta-omics data of collection objects

Test schema

Homepage: [http://www.mod-co.net/wiki/Main\\_Page](http://www.mod-co.net/wiki/Main_Page)

Page [Discussion](#)

### modco:(0) - unit processing date value (1)

**(0) - unit processing date <value>**: Date of physical or digital unit elementary procedural step. The date refers according to ISO 8601 specification, i.e. YYYY-MM-DD

Constraints in the context of [Meta-omics\\_data\\_of\\_collection\\_objects](#):

- **cardinality** 0..1 (=optional single occurrence)

**Display order:** 16

**Mandatory:** -

**Data type:** text

**Resource links:** [GGBN - amplificationDate](#) [DWB-DC: CollectionSpecimenProcessing - ProcessingDate](#)

[Classes: Class](#) | [Concept](#) | [Meta-omics data of collection objects](#)

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[modco:Elementary operational domains \(1\)](#)

(No concepts defined yet.)

[modco:Elementary operational domains.Data generating \(1\)](#)

**By label:** (0) - data record agent <name>

**By concept name:** [modco:\(0\) - data record agent name \(1\)](#)

[modco:Elementary operational domains.Measuring \(1\)](#)

(No concepts defined yet.)

[modco:Elementary operational domains.Processing \(1\)](#)

(No concepts defined yet.)

[modco:Omics classes \(1\)](#)

(No concepts defined yet.)

[modco:Omics classes.\(Meta-\)genomics/transcriptomics \(1\)](#)

(No concepts defined yet.)

[modco:Omics classes.\(Meta-\)metabolomics \(1\)](#)

(No concepts defined yet.)

[modco:Omics classes.\(Meta-\)proteomics \(1\)](#)

**By label:** (0) - data record agent <name>

**By concept name:** [modco:\(0\) - data record agent name \(1\)](#)