

SIP Expert GUI Software Design Document

This document represents a software design document that has been created to drive the development of the Expert GUI of the Spatial Information Platform of the SWITCH-ON EU FP7 project.

Resource Renderer

The Resource Renderer is used for visualising meta-data of resources in the SIP Expert GUI.

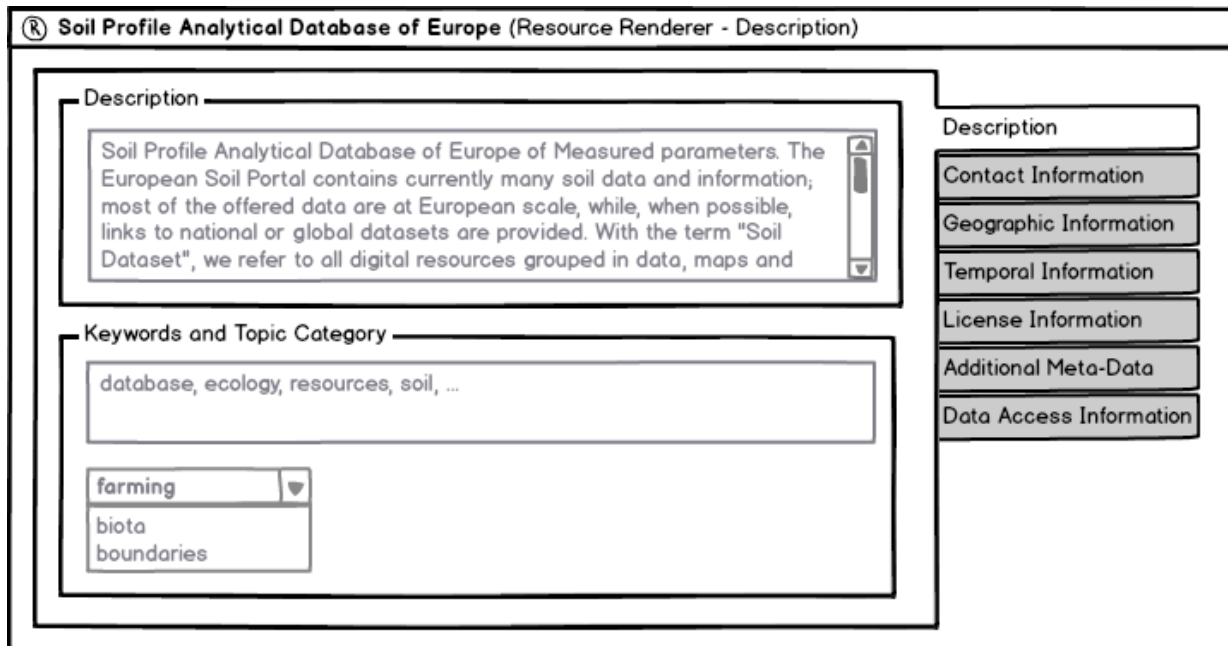
Resource Renderer: Description

The name of the resource is shown in the title of the Renderer. The type of the resource (e.g. "repurposed data") is indicated by the icon of the title bar.

The Renderer should be derived from the respective Editor or a common Panel for Editors and Renderers should be created. Some input fields of the Editor should be disabled (e.g. a disabled combo box that shows only the selected attribute) or hidden (e.g. UUID attributes). While the Editor should allow to change all attributes of the respective objects, the Renders shows only a subset of attributes that are interesting for the user.

However, the non-editable version of an input field of the Editor cannot always be used in the Renderer. There are exceptions, where an attribute in the Renderer has to be presented differently than in the Editor. For example, in the Renderer Keywords contains a comma separated list of tags from the two keywords tag groups "keywords INSPIRE themes 1.0" and "keywords open". In contrast to that, the Editor has to show list boxes for keyword selection.

Although the type of the resource is also interesting for the user, it is not shown in the Editor. Instead, the Icon of the Resource Object is used to indicate the Resource type.

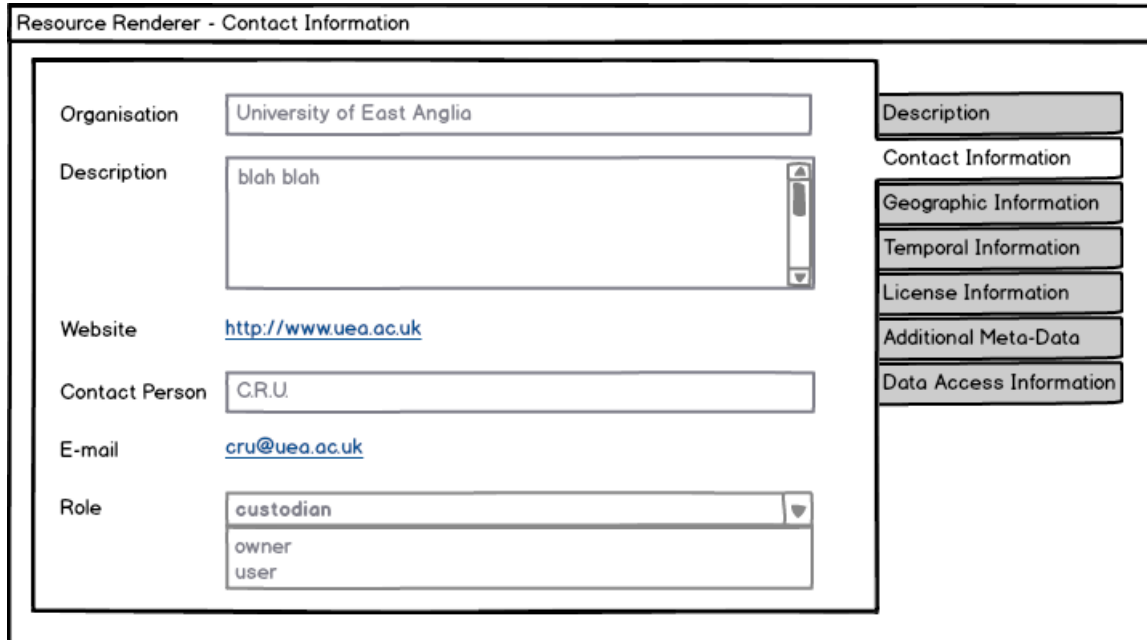


The screenshot shows a window titled "Soil Profile Analytical Database of Europe (Resource Renderer - Description)". The window contains two main sections. The "Description" section has a text area with the following text: "Soil Profile Analytical Database of Europe of Measured parameters. The European Soil Portal contains currently many soil data and information; most of the offered data are at European scale, while, when possible, links to national or global datasets are provided. With the term "Soil Dataset", we refer to all digital resources grouped in data, maps and". The "Keywords and Topic Category" section has a text area with the text "database, ecology, resources, soil, ..." and a dropdown menu with the selected item "farming" and two other items, "biota" and "boundaries". On the right side of the window, there is a vertical list of buttons: "Description", "Contact Information", "Geographic Information", "Temporal Information", "License Information", "Additional Meta-Data", and "Data Access Information".

Figure 1: Resource Renderer: Description

Resource Renderer: Contact Information

The Contact Renderer can be entirely based on the Contact Editor with the exception that URL and Email (mailto:) are clickable Hyperlink Labels in the renderer.



The screenshot shows a web form titled "Resource Renderer - Contact Information". The form contains several input fields and a sidebar with navigation buttons.

Form Fields:

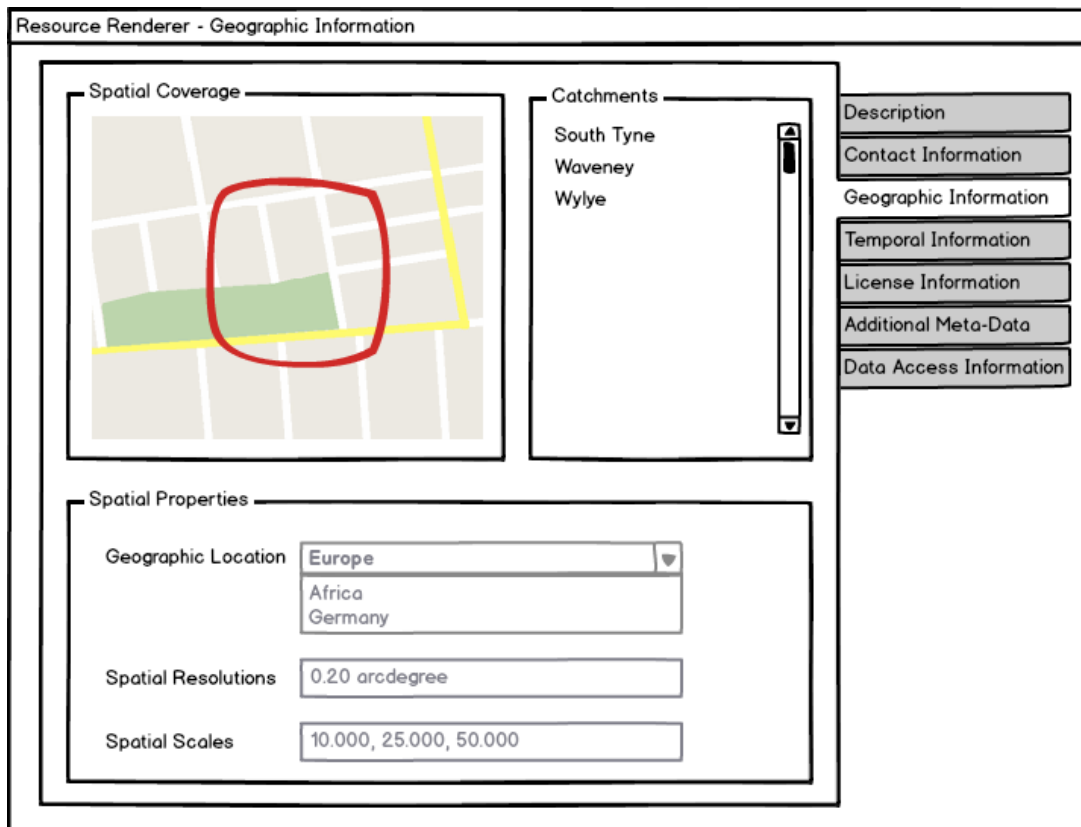
- Organisation:** University of East Anglia
- Description:** blah blah
- Website:** <http://www.uea.ac.uk>
- Contact Person:** C.R.U.
- E-mail:** cru@uea.ac.uk
- Role:** A dropdown menu with options: custodian, owner, user. "custodian" is selected.

Sidebar Buttons:

- Description
- Contact Information
- Geographic Information
- Temporal Information
- License Information
- Additional Meta-Data
- Data Access Information

Figure 2: Resource Renderer: Contact Information

Resource Renderer: Geographic Information



The screenshot shows a web form titled "Resource Renderer - Geographic Information". The form contains several input fields and a sidebar with navigation buttons.

Form Fields:

- Spatial Coverage:** A map showing a grid of land parcels. A red rectangle highlights a specific area, and a yellow line runs through it.
- Catchments:** A list of catchment areas: South Tyne, Waveney, Wylfe.
- Spatial Properties:**
 - Geographic Location:** A dropdown menu with options: Europe, Africa, Germany. "Europe" is selected.
 - Spatial Resolutions:** 0.20 arcdegree
 - Spatial Scales:** 10,000, 25,000, 50,000

Sidebar Buttons:

- Description
- Contact Information
- Geographic Information
- Temporal Information
- License Information
- Additional Meta-Data
- Data Access Information

Figure 3: Resource Renderer: Geographic Information

Resource Renderer: Temporal Information

Resource Renderer - Temporal Information

Temporal Coverage of the Data

Start Date

01/01/2013

End Date

31/12/2013

Temporal Properties

Date of Creation

01/01/2013

Date of Publication

01/01/2013

Date of last Modification

10/03/2013

Description

Contact Information

Geographic Information

Temporal Information

License Information

Additional Meta-Data

Data Access Information

Figure 4: Resource Renderer: Temporal Information

Resource Renderer: License Information

Resource Renderer - License Information

Description

The datasets available on this server are provided freely for Research and Education purposes. Before retrieving data please read the conditions below and acknowledge that you accept them. Registration will provide you with access to the TIGGE data with a delay of 48 hours after initial time of the forecasts. Conditions: Data available from this

Access Conditions and Limitations

Conditions for Access and Use

No conditions apply

Conditions unknown

Proprietary License

Limitations on Public Access

no limitation

(a) confidentiality provided for by law

(b) international relations

Description

Contact Information

Geographic Information

Temporal Information

License Information

Additional Meta-Data

Data Access Information

Figure 5: Resource Renderer: License Information

Resource Renderer: Additional Meta-Data

The Additional Meta-Data Renderer shows only Meta-Data objects which are not of type "basic meta-data". If, possible, the type of the meta-data object should be indicated by an icon in the title bar of the respective accordion page, e.g. a "Q" Icon for quality meta-data. The title shows the name of the Meta-Data object.

Meta-Data Document shows either an icon plus a download link to the meta-data file or the formatted content in a HTML Pane.

Resource Renderer - Additional Meta-Data

[O] Sample Origin Meta-Data

Description

ISO19115 Meta-Data XML File automatically imported by SIP Meta-Data Wizard.

Meta-Data Document

Download

<?xml version="1.0" encoding="UTF-8"?><gmd:MD_Metadata xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:gco="http://www.isotc211.org/2005/gco" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:gml="http://www.opengis.net/gml" xmlns:xlink="http://www.w3.org/1999/xlink" xsi:schemaLocation="http://www.isotc211.org/2005/gmd http://schemas.opengis.net/isotc211.org/2005/gmd/gmd.xsd">

[L] Sample Lineage Meta-Data

[Q] Sample Quality Meta-Data

Description

Contact Information

Geographic Information

Temporal Information

License Information

Additional Meta-Data

Data Access Information

Figure 6: Resource Renderer: Additional Meta-Data

Resource Renderer: Data Access Information

Only representations of type "original data" are shown in this Renderer. The Icon in the title bar of the accordion should indicate the function of the resource *contentLocation* link.

The "Data Access Functions" panel shows as first entry the default access method for the function. If the function is "download", the Icon should be selected based on the *contentType* (e.g. application/zip). For other types of functions, either the default icon (as shown in the title bar), or an icon selected according to "protocol" (e.g. OGC:WMS) should be shown. The name of the link should be selected based on the function, e.g. "Download File", "Open Order Form", "Show Service URL", etc.

Other Entries should be shown based on available Representation Action Providers, e.g. "Add to cismap".

Resource Renderer - Data Access Information

[D] ESRI ArcInfo Grid HydroSHEDS data

Description

ZIP Package containing the data in ESRI ArcInfo Grid Format. The ESRI Grid format is supported by the ESRI GIS software environment, but it can also be imported into various independent GIS packages. Each raster coverage is provided in a root folder (named after the raster layer) which contains two subfolders: the grid data

Spatial and Temporal Properties

Temporal Resolution

daily


Spatial Resolutions


0.20 arcdegree

Spatial Scales

10.000

Data Access Functions


[Download File](http://www.waterswitchon.eu/download.xls)
<http://www.waterswitchon.eu/download.xls>


[Add to cismap](#)

[S] OGC WFS Service for HydroSHEDS data

[S] OGC WMS Service for HydroSHEDS data

Description

Contact Information

Geographic Information

Temporal Information

License Information

Additional Meta-Data

Data Access Information

Figure 7: Resource Renderer: Data Access Information

Resource Renderer: Data Preview

The Preview Renderer shows Representation objects of type "preview data". In contrast to the Representation Renderer, the only relevant information for the user is the actual preview. Therefore, all other attributes like *description*, *spatialResolution*, etc. are not shown in the Preview Renderer.

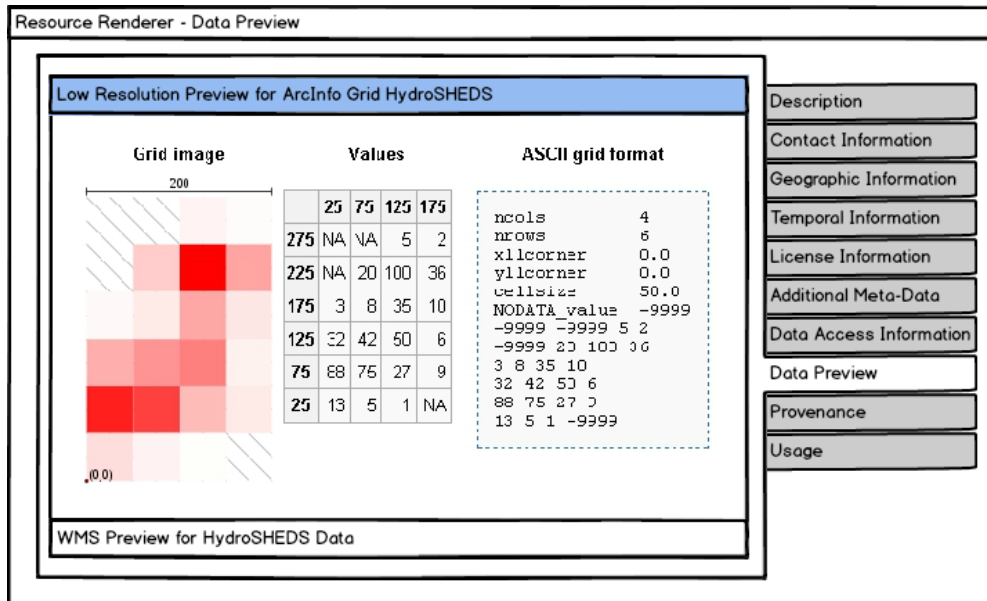


Figure 8: Resource Renderer: Data Preview

Resource Renderer: Resource Provenance

Provenance shows the source relationship of the resource, i.e. the process or experiment that related the resource. Protocol shows either an icon plus a download link (*contentLocation*) to the meta-data (usually a protocol of the experiment) or the formatted content in a HTML Pane. The Icon of the download link can be selected based on the *contentType* of the meta-data *contentLocation*. The links to the source Resources should switch to the respective Resource Renderer.

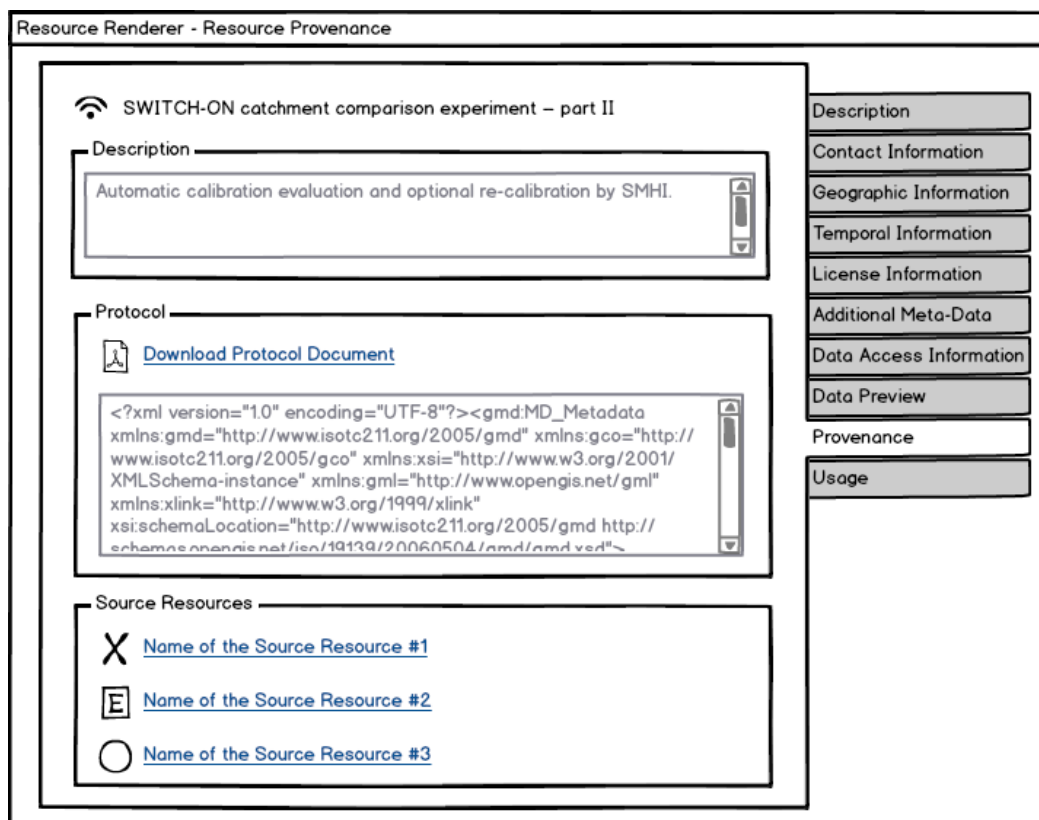


Figure 9: Resource Renderer: Resource Provenance

Resource Renderer: Resource Usage

Same design and information as previous renderer with the exception, that there can be multiple usage relationships (shown in an accordion) and each relationship object points to only one target resource.

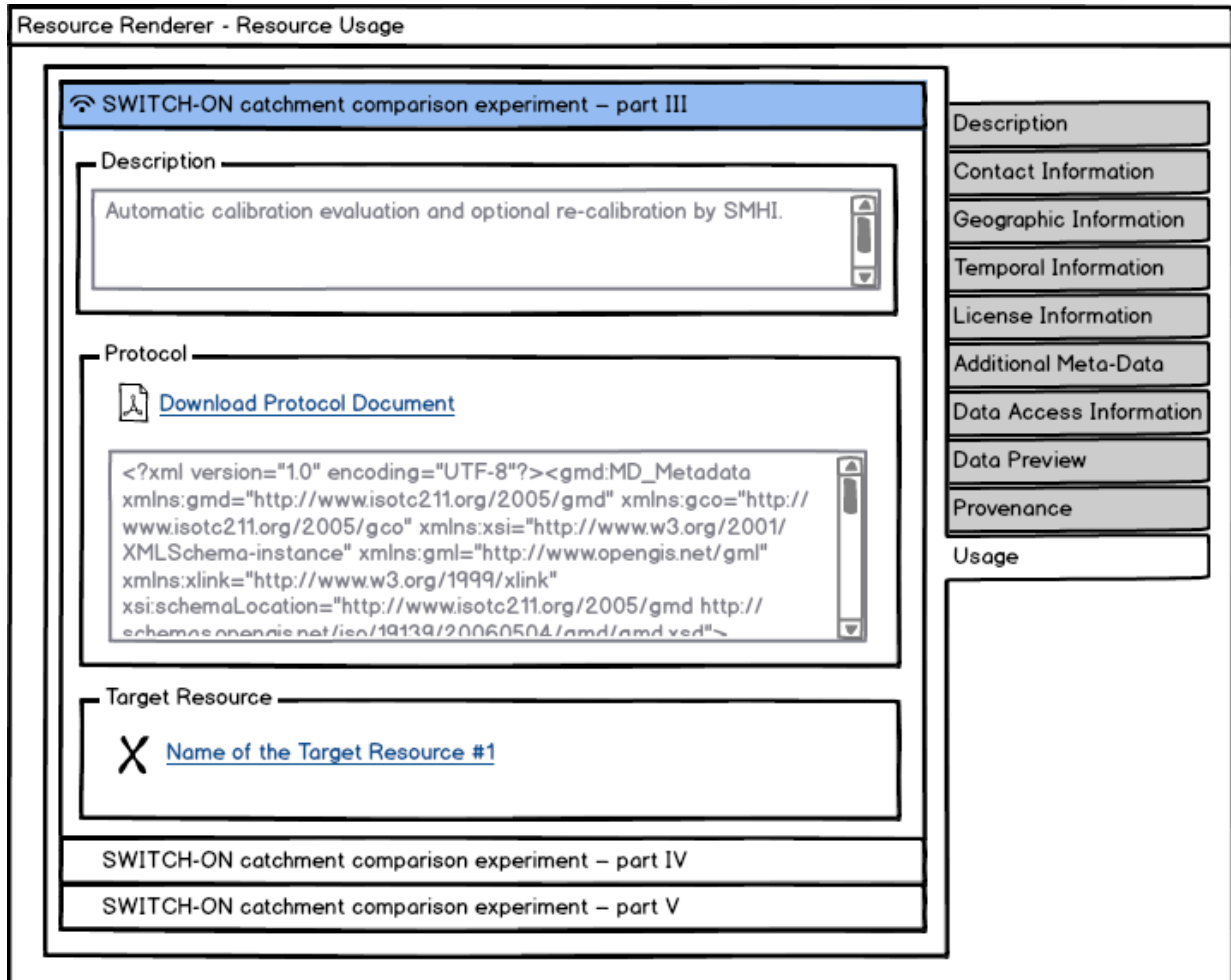


Figure 10: Resource Renderer: Resource Usage

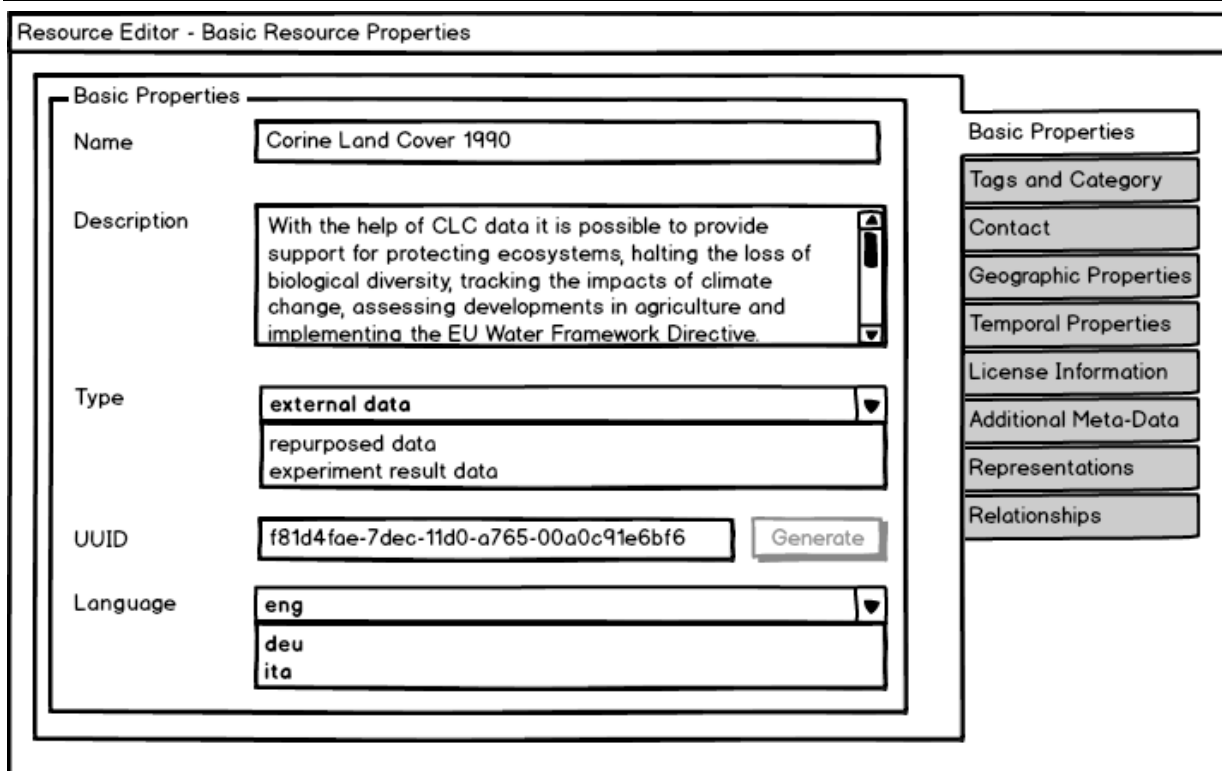
Resource Editor

The Resource Editor is an expert tool for editing resource Meta-Data. In contrast to the Meta-Data Wizard, it gives the user more control and advanced editing functionality at the expense of being more complex than the wizard.

Resource Editor: Basic Resource Properties

The Basic Resource Editor cannot be used as Basis for the Resource Renderer, since some attributes of the Resource Object are not shown in the Renderer. However, several editor panels or other editors can be reused in the Resource Renderer.

The Basic Properties Panel is the same for the Meta-Data-, "Representation- and Relationship Editor.



The screenshot shows the 'Resource Editor - Basic Resource Properties' window. It contains a 'Basic Properties' section with the following fields:

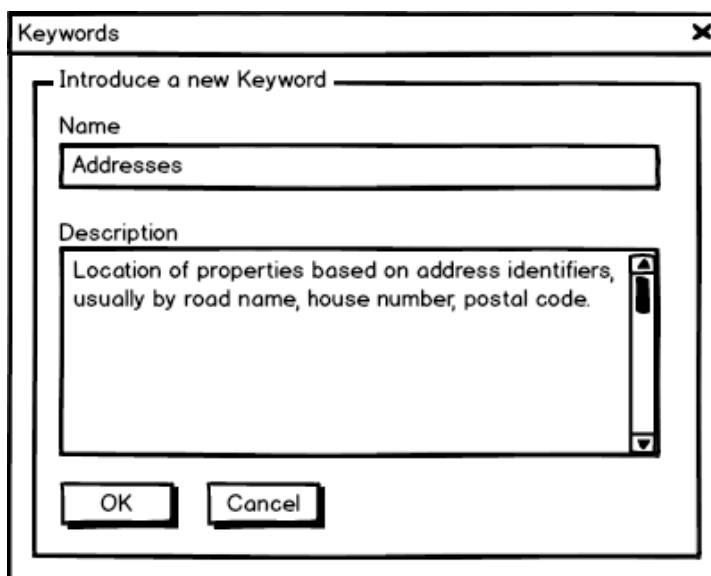
- Name:** Corine Land Cover 1990
- Description:** With the help of CLC data it is possible to provide support for protecting ecosystems, halting the loss of biological diversity, tracking the impacts of climate change, assessing developments in agriculture and implementing the EU Water Framework Directive.
- Type:** external data (selected from a dropdown menu that also includes repurposed data and experiment result data)
- UUID:** f81d4fae-7dec-11d0-a765-00a0c91e6bf6 (with a 'Generate' button)
- Language:** eng (selected from a dropdown menu that also includes deu and ita)

On the right side of the window, there is a vertical stack of buttons for navigating to other property sections: Basic Properties, Tags and Category, Contact, Geographic Properties, Temporal Properties, License Information, Additional Meta-Data, Representations, and Relationships.

Figure 11: Resource Editor: Basic Resource Properties

Resource Editor: Topic Category and Tags

Keywords are tags of the tags array, therefore no dedicated editor panel for keywords is provided. Instead, the generic Simple Tags Editor Panel is used.



The screenshot shows the 'Keywords' dialog box. It has a title bar with a close button. The main content area is titled 'Introduce a new Keyword' and contains the following fields:

- Name:** Addresses
- Description:** Location of properties based on address identifiers, usually by road name, house number, postal code.

At the bottom of the dialog box, there are 'OK' and 'Cancel' buttons.

Figure 12: Simple Tags Editor Panel

Supported Tag Groups that can be used to fill the tags array of the Resource Object are:

- geography
- hydrological concept
- keywords - INSPIRE themes 1.0

- keywords - open
- collection

Resource Editor - Topic Category and Tags

Topic Category

farming

biota

boundaries

Keywords and additional Tags

Tag Groups

collection

keywords - INSPIRE themes

keywords - open

Tags

absorption

aerosol

aggregation

agriculture

Assigned Tags

aggregation

Add New Remove

Basic Properties

Tags and Category

Contact

Geographic Properties

Temporal Properties

License Information

Additional Meta-Data

Representations

Relationships

Figure 13: Resource Editor: Topic Category and Tags

Resource Editor: Resource Contact Information

The Contact Editor can be used to edit the contact object of the resource object.

Resource Editor - Resource Contact Information

Contact Editor

Basic Properties

Tags and Category

Contact

Geographic Properties

Temporal Properties

License Information

Additional Meta-Data

Representations

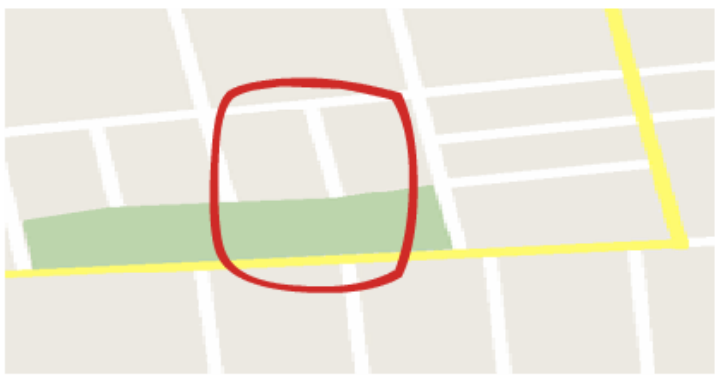
Relationships

Figure 14: Resource Editor: Resource Contact Information

Resource Editor: Geographic Information

Resource Editor - Geographic Information

Spatial Coverage



+

-

Other Properties

SRID

EPSSG:4326

Add

Location

Europe

Africa

Germany

Add

Basic Properties

Tags and Category

Contact

Geographic Properties

Temporal Properties

License Information

Additional Meta-Data

Representations

Relationships

Figure 15: Resource Editor: Geographic Information

Resource Editor: Temporal Information

Resource Editor - Temporal Information

Temporal Coverage of the Data

Start Date

01/01/2013

End Date

31/12/2013

Temporal Properties

Date of Creation

01/01/2013

Date of Publication

01/01/2013

Date of last Modification

10/03/2013

Basic Properties

Tags and Category

Contact

Geographic Properties

Temporal Properties

License Information

Additional Meta-Data

Representations

Relationships

Figure 16: Resource Editor: Temporal Information

Resource Editor: License Information

Resource Editor - License Information

License Statement

The datasets available on this server are provided freely for Research and Education purposes. Before retrieving data please read the conditions below and acknowledge that you accept them. Registration will provide you with access to the TIGGE data with a delay of 48 hours after initial time of the forecasts. Conditions: Data available from this

Access Conditions and Limitations

Conditions for Access and Use

No conditions apply

Conditions unknown

Proprietary License

Limitations on Public Access

no limitation

(a) confidentiality provided for by law

(b) international relations

Conformity

Not evaluated

Commission Regulation No 1205/2008

Commission Regulation No 1089/2010

Basic Properties

Tags and Category

Contact

Geographic Properties

Temporal Properties

License Information

Additional Meta-Data

Representations

Relationships

Figure 17: Resource Editor: License Information

Resource Editor: Additional Meta-Data

The table shows the Meta-Data Objects that are currently assigned with the Resource. The "Edit" and "Add" buttons open the Meta-Data Editor. Refer to the respective mockups for more details.

Resource Editor

Name	Type	Contact	Document
Autogenerated SWITCH-ON Meta-Data	Basic Meta-Data	yes	no
Basic Lineage Meta-Data	Lineage Meta-Data	yes	no
Basic Quality Meta-Data	Quality Meta-Data	yes	yes
ISO 19115 Document	Origin Meta-Data	yes	yes

Add

Remove

Edit

Basic Properties

Tags and Category

Contact

Geographic Properties

Temporal Properties

License Information

Additional Meta-Data

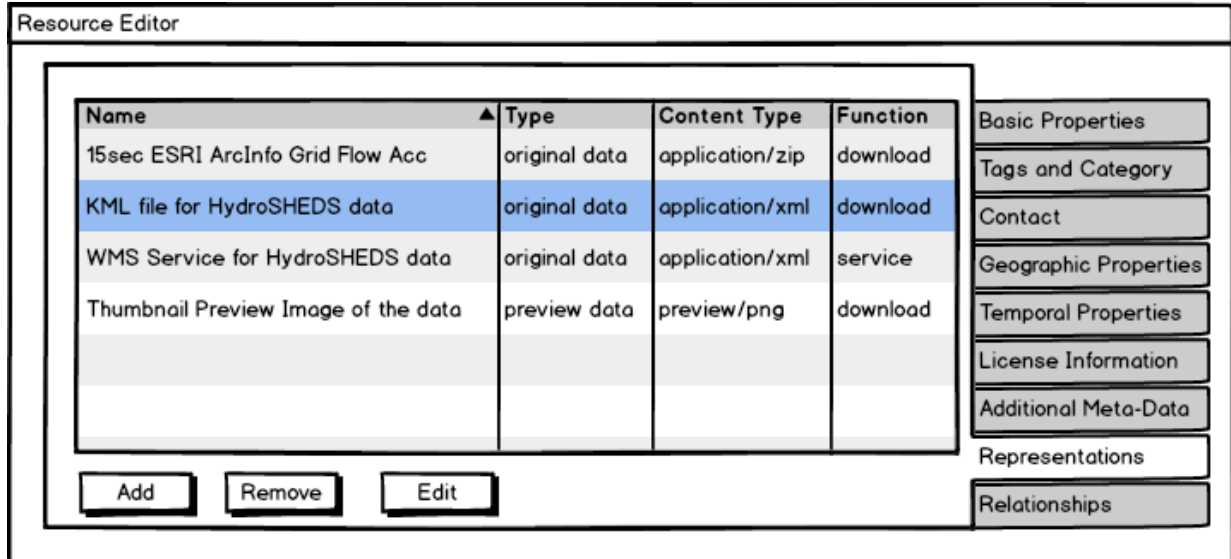
Representations

Relationships

Figure 18: Resource Editor: Additional Meta-Data

Resource Editor: Representations

The table shows the Representation Objects that are currently assigned with the Resource. The "Edit" and "Add" buttons open the Representation Editor. Refer to the respective mockups for more details.



Name	Type	Content Type	Function
15sec ESRI ArcInfo Grid Flow Acc	original data	application/zip	download
KML file for HydroSHEDS data	original data	application/xml	download
WMS Service for HydroSHEDS data	original data	application/xml	service
Thumbnail Preview Image of the data	preview data	preview/png	download

Buttons: Add, Remove, Edit

Sidebar: Basic Properties, Tags and Category, Contact, Geographic Properties, Temporal Properties, License Information, Additional Meta-Data, Representations, Relationships

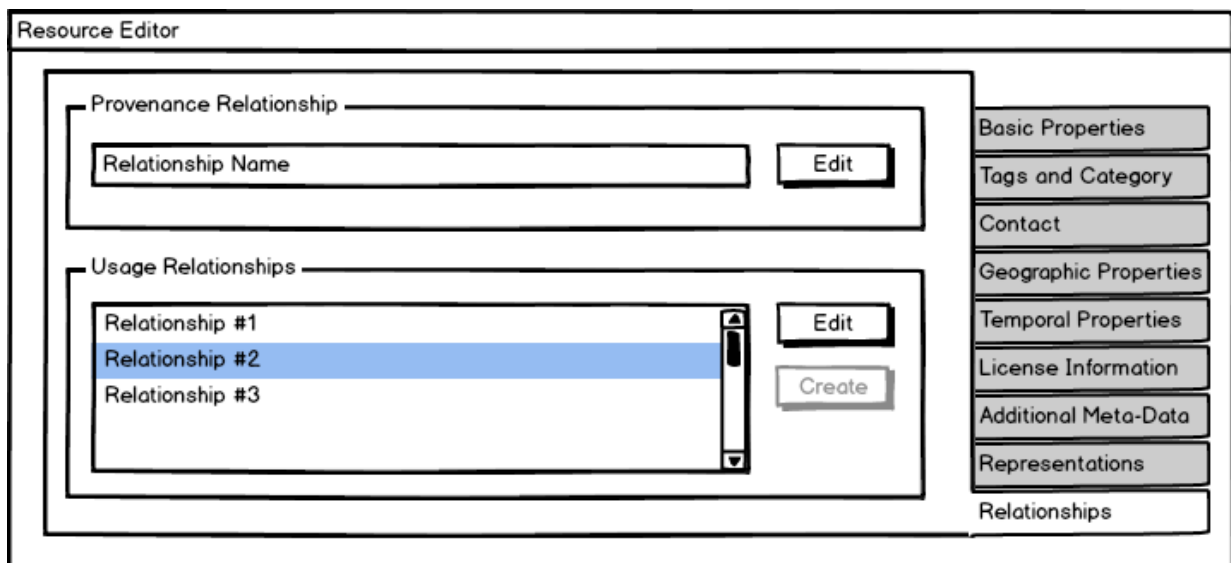
Figure 19: Resource Editor: Representations

Resource Editor: Relationships

The Provenance Relationship is the Relationship (e.g. the experiment) that created the resource, i.e. the *targetResource* attribute of the Relationship Object has as value the current Resource Object.

The Usage Relationships are relationships that use the resource as input, i.e. the *sourceResources* array of the Relationship Object has one entry the current Resource Object.

The "Edit" button opens the Relationship Editor. The "Create" button opens the Relationship Wizard.



Provenance Relationship

Relationship Name [] Edit

Usage Relationships

Relationship #1
Relationship #2
Relationship #3

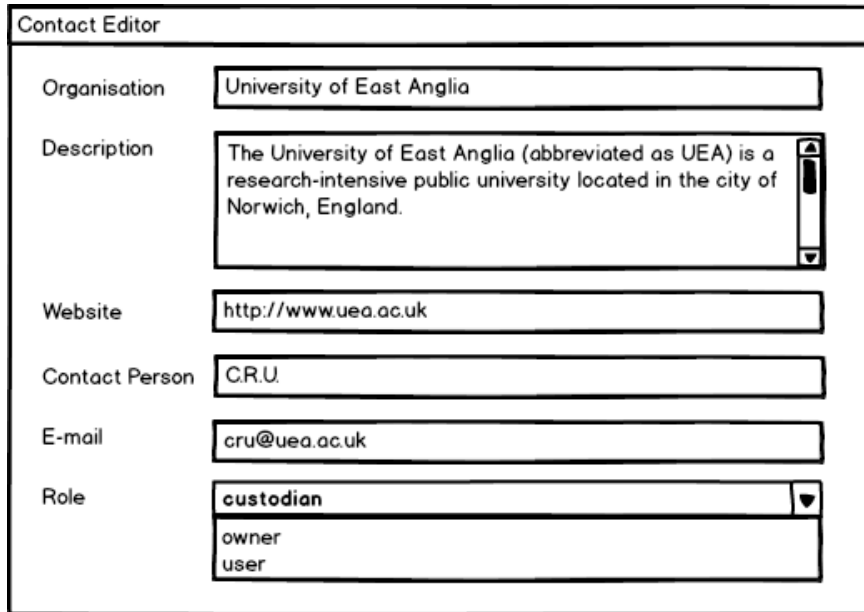
Edit Create

Sidebar: Basic Properties, Tags and Category, Contact, Geographic Properties, Temporal Properties, License Information, Additional Meta-Data, Representations, Relationships

Figure 20: Resource Editor: Relationships

Contact Editor

The Contact Editor can be used as Basis for the Contact Renderer.



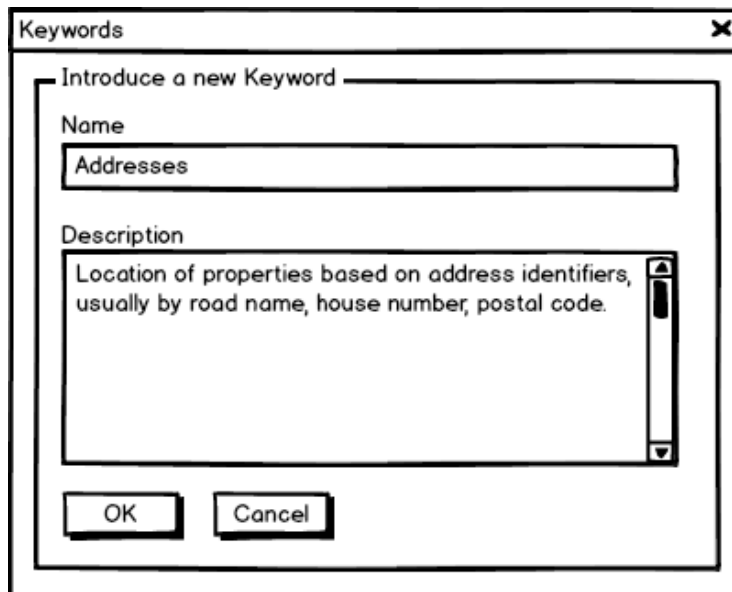
The Contact Editor form is a window titled "Contact Editor". It contains several input fields and a dropdown menu. The fields are labeled "Organisation", "Description", "Website", "Contact Person", "E-mail", and "Role". The "Organisation" field contains "University of East Anglia". The "Description" field contains "The University of East Anglia (abbreviated as UEA) is a research-intensive public university located in the city of Norwich, England." The "Website" field contains "http://www.uea.ac.uk". The "Contact Person" field contains "C.R.U.". The "E-mail" field contains "cru@uea.ac.uk". The "Role" field is a dropdown menu with "custodian" selected, and a list of options "owner" and "user" is visible below it.

Figure 21: Contact Editor

Meta-Data Editor

The Meta-Data Editor cannot be used as Basis for the Meta-Data Renderer, since many attributes of the Meta-Data Object are not shown in the Renderer.

The "New" button allows an administrator to define a new tag of an open Tag Group in the Tag and Tag Group Editor (for a list of open tag groups please refer to the mockup of the Tag and Tag Group Editor). The casual user shall only use a simplified dialog to add a new tag to a selected tag group. When the user closes the Tag and Tag Group Editor or the "Introduce new Tag Dialog", the newly created tag is selected in the Meta-Data Editor.



The "Introduce new Tag Dialog" is a window titled "Keywords" with a close button (X) in the top right corner. It contains a section titled "Introduce a new Keyword" with two input fields: "Name" and "Description". The "Name" field contains "Addresses". The "Description" field contains "Location of properties based on address identifiers, usually by road name, house number, postal code." At the bottom of the dialog are two buttons: "OK" and "Cancel".

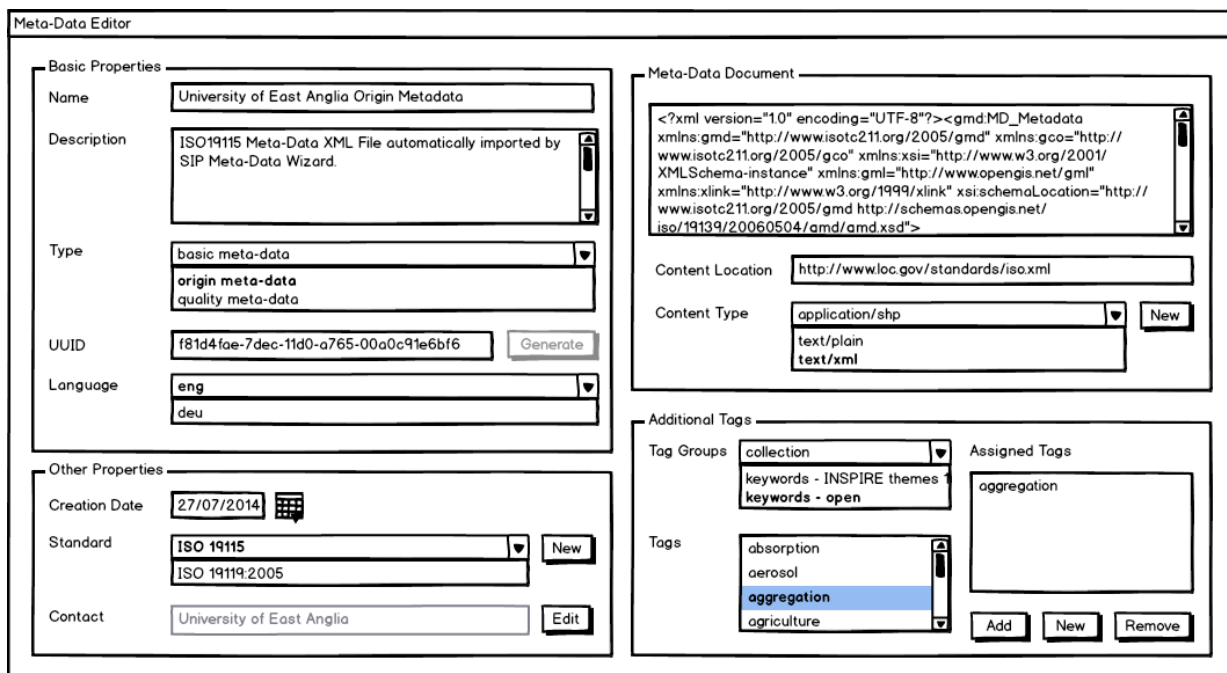
Figure 22: Introduce new Tag Dialog

The Introduce new Tag Dialog (Figure 22) is a simple dialog that allows the user to add a tag to a preselected tag group. The editor is generic and can be used to add tags to arbitrary tag groups. The title of the editor should be adapted according to the name of the tag group, e.g. "Keywords". Deleting and editing of tags is not supported.

Supported Tag Groups that can be used to fill the tags array of the Meta-Data Object are:

- - n/a: currently there are no additional tags that are relevant for Meta-Data Objects

The "Edit" button of the Contact Attribute opens the Contact Editor. The "Add" button in the Additional Tags Panel lets the user add a selected tag to the tags array of the Meta-Data Object. The "New" Button opens the Tag and Tag Group Editor. The newly created tag is automatically added to the tags array. The "Remove" button deletes a tag is selected in the Assigned Tags List from the tags array. For reasons of simplicity, the Assigned Tags List does not distinguish between different tags.



The screenshot shows the Meta-Data Editor interface, which is divided into several panels:

- Basic Properties:**
 - Name: University of East Anglia Origin Metadata
 - Description: ISO19115 Meta-Data XML File automatically imported by SIP Meta-Data Wizard.
 - Type: basic meta-data, origin meta-data, quality meta-data
 - UUID: f81d4fae-7dec-11d0-a765-00a0c91e6bf6 (Generate button)
 - Language: eng, deu
- Other Properties:**
 - Creation Date: 27/07/2014
 - Standard: ISO 19115 (New button), ISO 19119:2005
 - Contact: University of East Anglia (Edit button)
- Meta-Data Document:**
 - Content Location: http://www.loc.gov/standards/iso.xml
 - Content Type: application/shp, text/plain, text/xml (New button)
- Additional Tags:**
 - Tag Groups: collection, keywords - INSPIRE themes, keywords - open
 - Tags: absorption, aerosol, aggregation (selected), agriculture
 - Assigned Tags: aggregation (Add, New, Remove buttons)

Figure 23: Meta-Data Editor

Representation Editor

The Representation Editor cannot be used as Basis for the Representation Renderer, since many attributes of the Representation Object are not shown in the Renderer. However, some of the editor's panels could be reused in the renderer.

The "Upload" is used to upload local data to one of the SWITCH-ON Data Repositories. A respective Representation Wizard has been defined.

Representation Editor

Basic Properties

NameESRI ArcInfo Grid HydroSHEDS data
DescriptionESRI ArcInfo Grid HydroSHEDS data
Typeaggregated data
original data
preview data
UUIDf81d4fae-7dec-11d0-a765-00a0c91e6bf6Generate

Representation Data

```
{
  "id": 1,
  "name": "A green door",
  "price": 12.50,
  "tags": "home", "green"
}
```

Content Locationhttp://www2.demis.nl/worldmap/wms.asp?SUpload
Content Typeapplication/shp
text/plain
text/xmlNew

Spatial and Temporal Properties

Temporal Resolutiondaily
Spatial Resolutions0.20 arcdegree
Spatial Scales10.000

Additional Tags

Tag Groups
collection
keywords - INSPIRE themes
keywords - open
Assigned Tags
aggregation
Tags
absorption
aerosol
aggregation
agriculture
AddNewRemove

Other Properties

Function
application
download
information
offlineAccess
order
search
service
template
Protocol
OGC:GML
OGC:SOS
OGC:WCS
OGC:WFS
OGC:WMS
OGC:WPS
New
Application
Google Earth
WFS Client
WMS Client
New

Figure 24: Representation Editor

Relationship Editor

The Relationship Editor cannot be used as Basis for the Relationship Renderer, since many attributes of the Relationship Object are not shown in the Renderer.

Relationship Editor

Basic Properties

NameRelationship Name
DescriptionRelationship Description
Typederived
experiment
repurposed
UUIDf81d4fae-7dec-11d0-a765-00a0c91e6bf6Generate

Target Resource

Name	Type
ESRI ArcInfo Grid Mean Flow Accumulation	repurposed data

Source Resources

Name	Type
15sec ESRI ArcInfo Grid Flow Accumulation	repurposed data
30sec ESRI ArcInfo Grid Flow Accumulation	external data
60sec ESRI ArcInfo Grid Flow Accumulation	external data

Remove

Additional Tags Panel of the Representation Editor

Additional Meta-Data Panel of the Basic Resource Editor

Figure 25: Relationship Editor

The Relationships Panels must support drag & drop of Resource Objects. The Target Resource will be replaced, when a new Resource Object is dropped on the table. Thereby, it must be checked whether the Resource Object that shall be used as Target Resource (e.g. outcome of an experiment) isn't already the Target Resource of another Relationship, since one resource could not have been created by two different experiments. When a new Resource Object is dropped on the Source Resources Table, it will be added to the list (if not already present).

Tag and Tag Group Editor

The Tag and Tag Group Editor allows editing of all tags and tag groups, whether they are fixed (closed) or not. Therefore, it should only be used by administrators. Casual users shall only be allowed to add a new tag to an open tag group! Editing or deleting of tags shall not be permitted.

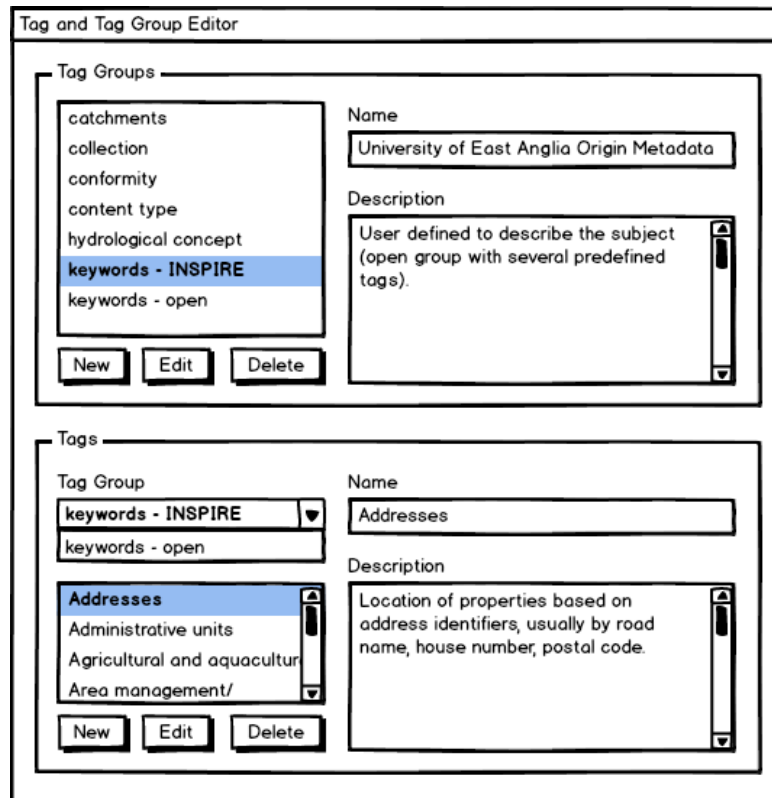


Figure 26: Tag and Tag Group Editor

According to the specification of the Standard Information Model (D2.6, 2014), Open Tag Groups are:

- access conditions
- application profile
- catchments
- collection
- content type
- geography
- hydrological concept
- keywords - open
- location
- meta-data standard
- protocol
- srid

Search Form

A Component Titled Border¹ is used to render checkboxes for activating / deactivating the different search forms. Deactivated Search Forms should be disabled.

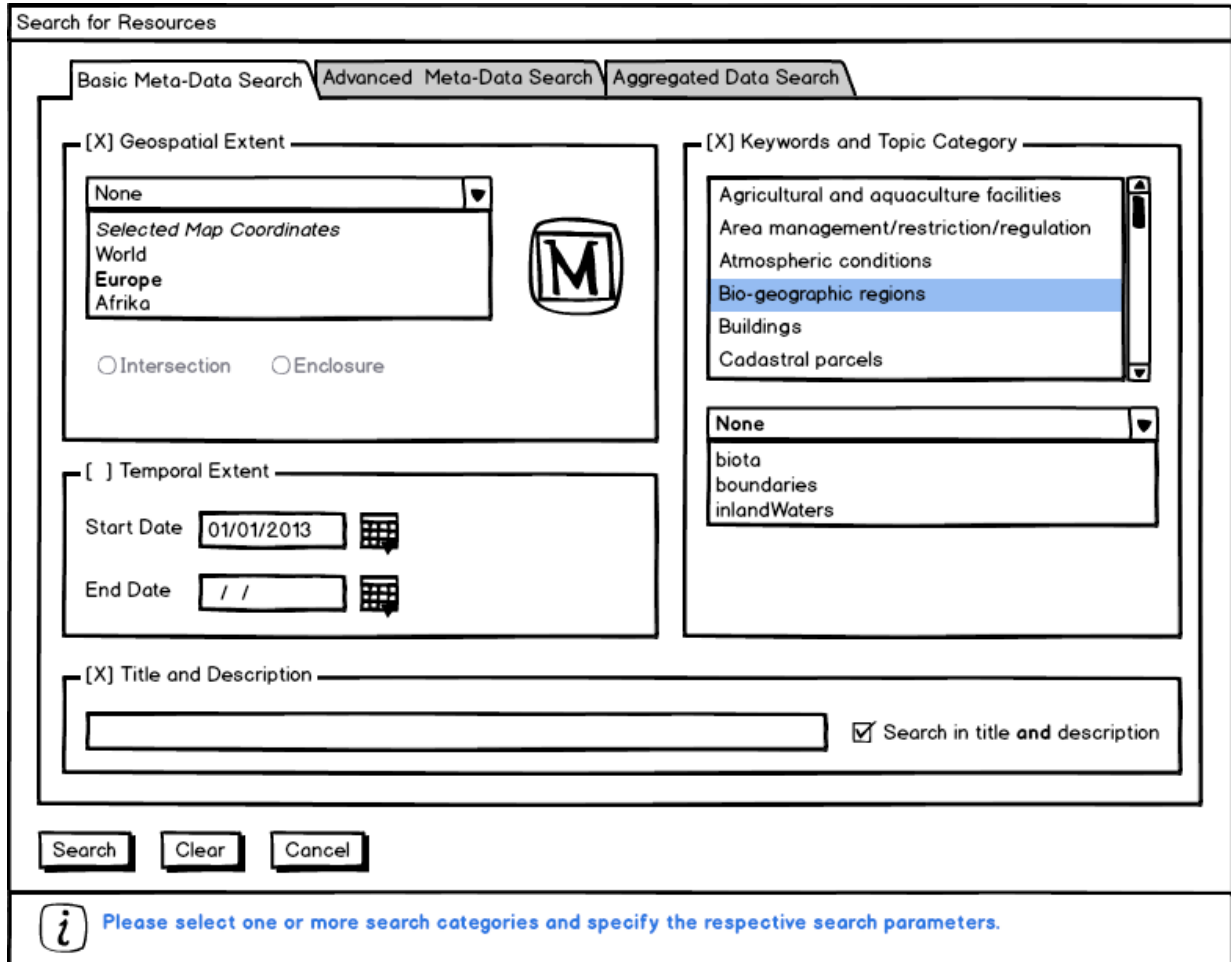


Figure 27: Search Form

The Location Combo Box is filled with location attributes. "Selected Map Coordinates" will be activated automatically when coordinates in cismap have been selected.

The Radio Buttons "Intersection" and "Enclosure" are only enabled when "Selected Map Coordinates" is selected in the Location Combo Box. When any other item is selected in the Location Combo Box, both Radio Buttons are disabled and "Enclosure" is selected.

When a search panel is activated via the checkbox, the info box at the bottom of the search panel should show the following text:

- Geospatial Extent: Select a location from the drop down list or select the coordinates in the map by clicking on the Icon.
- Intersection: Find all resources that intersect with the selected map coordinates.
- Enclosure: Find all resources that are completely contained in the selected map coordinates.
- Keywords and Topics: Select one or more keywords in the list and / or chose a topic category from the drop down box.

¹ <http://www.javalobby.org/java/forums/t33048.html>

- Temporal Extent: Specify the spatial coverage of the resources. Omit the end data to search for resources that are continuously updated.
- Title and Description: Enter a search term and chose whether only titles or titles and descriptions of resources are searched.

When a tag is selected a list or drop down box, the description of the tag should be shown in the info box. If no description is available, "No description for \$tag.name available." should be shown.

Meta-Data Wizard

The Meta-Data Wizard is an expert tool for collecting a complete set of meta-data in accordance to the Specification of the Standard Information Model.

Meta-Data Wizard Configuration Panel

This panel allows the user to select a meta-data profile from a number of predefined profiles (Figure 29).

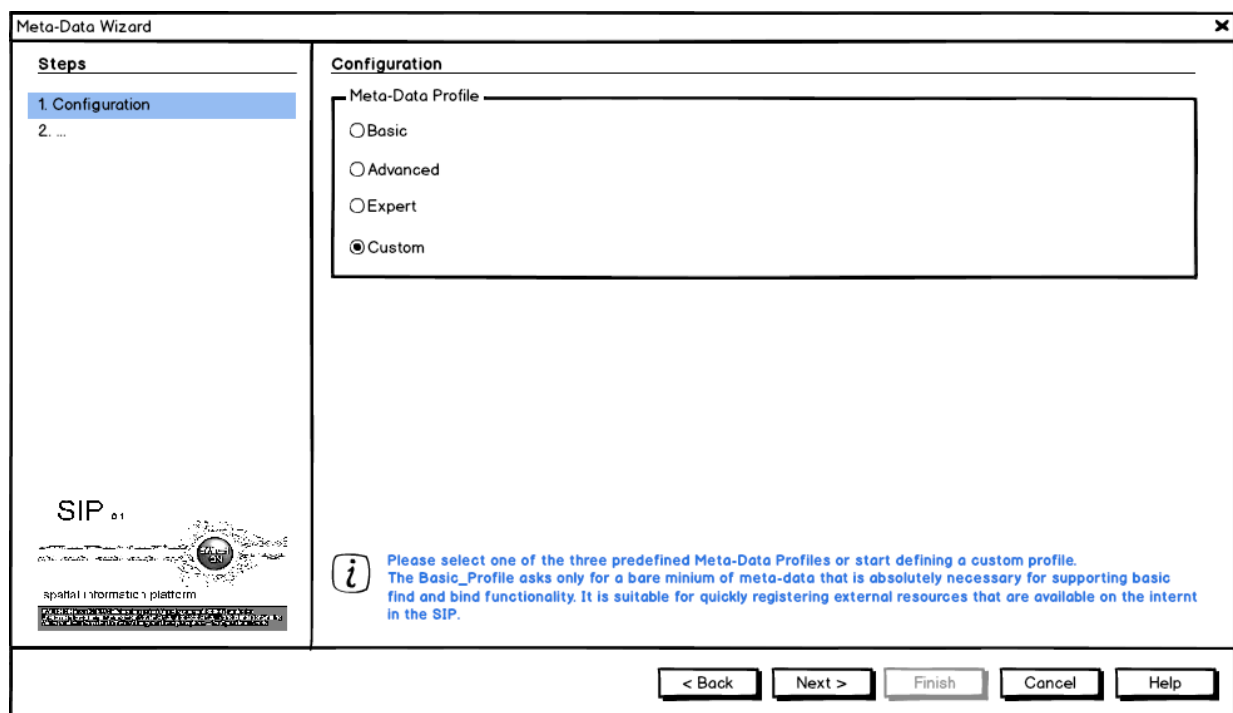


Figure 28: Meta-Data Wizard Configuration Panel

The steps of the wizard depend on the selection of the meta-data profile or the definition of a custom profile. Therefore no steps can be shown in the left pan of the Wizard. Once a profile has been selected or a custom profile has been defined, it is not possible to change this profile afterwards, i.e. the "Back" button of the first input panel (usually Basic Resource Information) is disabled.

Wizard Panel	Basic Profile	Advanced Profile	Expert Profile	Custom Profile
Basic Resource Properties	mandatory	mandatory	mandatory	mandatory
Topic Category and Keywords	mandatory	mandatory	mandatory	mandatory
Resource Contact Information	mandatory	mandatory	mandatory	mandatory
Geographic Information	mandatory	mandatory	mandatory	mandatory
Temporal Information	mandatory	mandatory	mandatory	mandatory
License Information	mandatory	mandatory	mandatory	mandatory
Additional Meta-Data	not available	mandatory	mandatory	optional
Additional Meta-Data: Basic Information	not available	mandatory	mandatory	mandatory when parent selected; n/a otherwise
Additional Meta-Data: Contact Information	not available	mandatory	mandatory	optional when parent selected; n/a otherwise
Additional Meta-Data: Import Meta-Data Document	not available	mandatory	mandatory	optional when parent selected; n/a otherwise
Additional Meta-Data: Edit Meta-Data Document	not available	mandatory	mandatory	mandatory when previous selected; n/a otherwise
Representations	mandatory	mandatory	mandatory	mandatory
Representations: Basic Information	not available	mandatory	mandatory	optional
Representations: Additional Information	not available	mandatory	mandatory	optional
Representations: Data Import	not available	not available	mandatory	optional
Representations: Data Access Information	mandatory	mandatory	mandatory	mandatory
Relationship	not available	not available	mandatory	optional
Relationship: Basic Information	not available	not available	mandatory	mandatory when previous selected; n/a otherwise
Relationship: Import Meta-Data Document	not available	not available	mandatory	mandatory when parent selected; n/a otherwise
Relationship: Edit Meta-Data Document	not available	not available	mandatory	mandatory when previous selected; optional when parent selected; n/a otherwise

Figure 29: Predefined Meta-Data Profiles

Text to be shown in the Info Box:

- **Basic Profile:** The Basic Profile asks only for a bare minimum of meta-data that is absolutely necessary for supporting basic find and bind functionality. It is suitable for quickly registering external resources that are available on the internet in the SIP.
- **Advanced Profile:** The Advanced Profile covers the Basic Profile and asks also for additional information like meta-data on data quality and lineage meta-data. Furthermore, it allows the user to register different representations of a resource if the data is available in different resolutions or formats. It is suitable for registering external resources with comprehensive meta-information and increases the probability that the resource is identified by the user to be usable for a specific purpose, e.g. in an experiment.
- **Expert Profile:** The Expert Profile covers the Basic Profile and the Advanced Profile. It allows a user to import data into Data Repository of the SIP and define a Resource Relationship. It is suitable for registering resources that are the result of repurposing, e.g. an experiment result.

Input fields which prevent the wizard from switching to the next panel when left blank:

- Meta-Data Profile

Input fields that are substituted with default values when left blank:

- Meta-Data Profile: "Basic Profile" (preselected)

Custom Profile Configuration Panel

This optional panel is shown only when "Custom Profile" has been selected in the previous wizard panel. Once the panels have been selected by the user, steps of the Wizard must be updated accordingly.

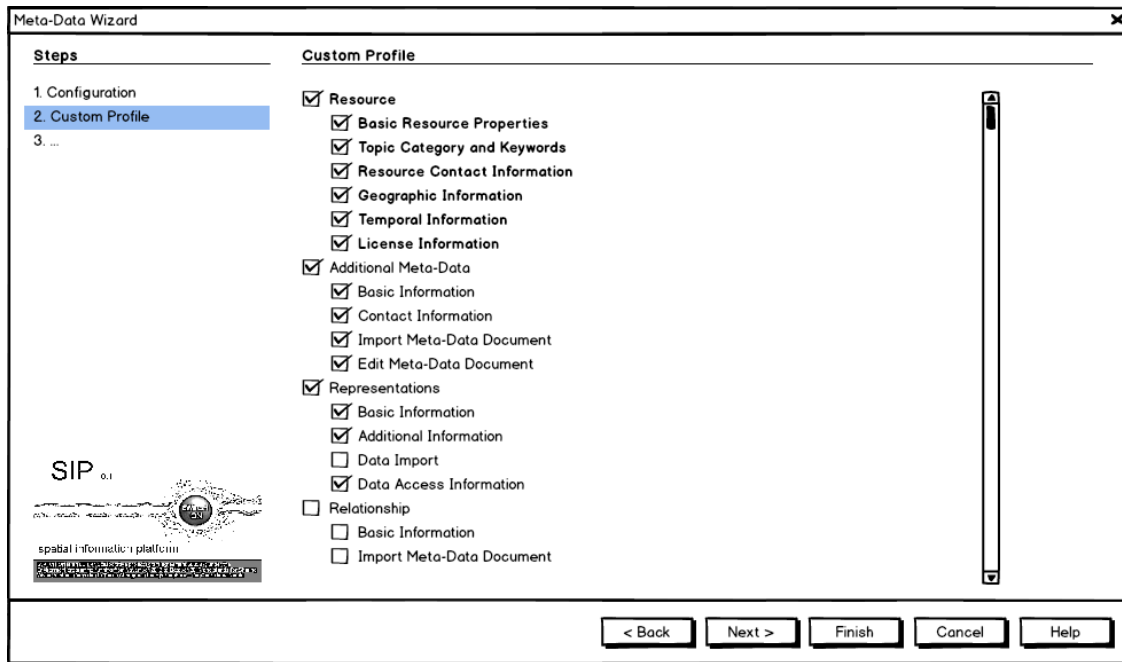


Figure 30: Custom Profile Configuration Panel

Some of the panels are mandatory (see Figure 29). They are selected by default and cannot be deselected by the user. Furthermore, some of the panels are mandatory, when their (optional) previous or parent panel has been selected. E.g. if “Additional Meta-Data” is selected, “Edit Meta-Data Document” must also be selected. Refer to Figure 29 for more information.

Once the configuration is complete and the user has switched to the next panel (“Basic Resource Properties”), the “Previous” button of the “Basic Resource Properties Panel” is disabled, so that the user cannot change the custom configuration afterwards.

Basic Resource Properties Panel

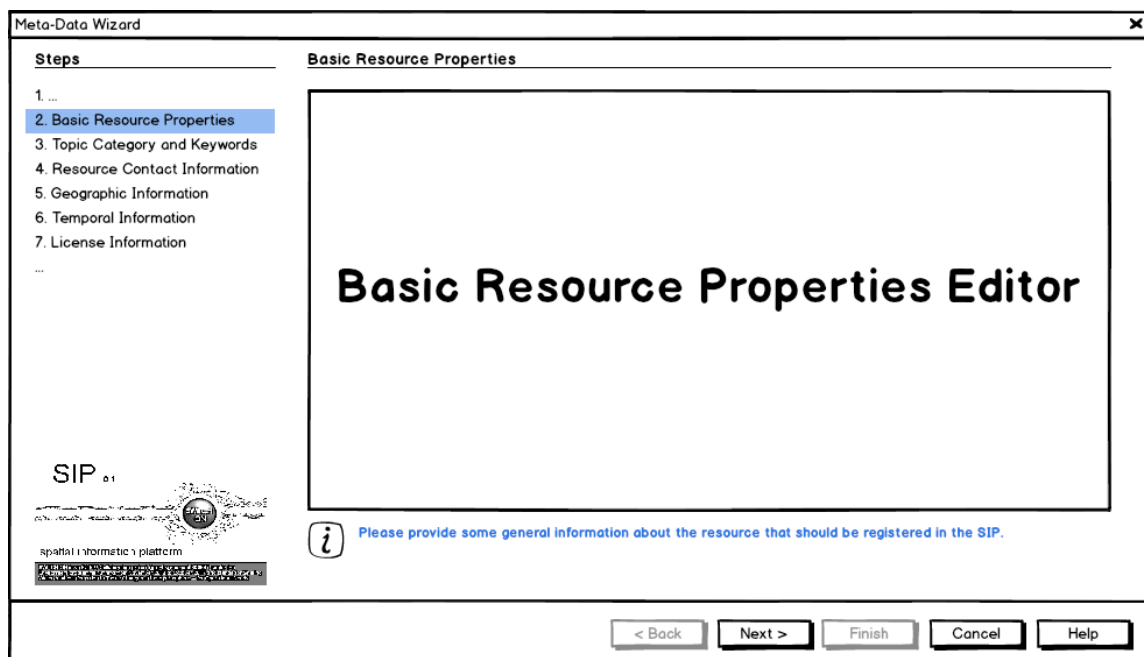


Figure 31: Basic Resource Properties Panel

Text to be shown in the Info Box when the respective input field receives focus:

- Name: Please enter the name of the resource
- Description: Please provide a comprehensive description of the resource
- Type: description of the selected tag
- UUID: Please enter a unique id of the resource. If the field is left blank, a UUID will be automatically generated.
- Language: description of the selected tag

Input fields which prevent the wizard from switching to the next panel when left blank:

- Name
- Description
- Type

Input fields that are substituted with default values when left blank:

- Type: "external data"
- Language: "eng"
- UUID: automatically generated

Difference to the respective Panel in the Resource Editor:

- The "Generate" button of the UUID property is not shown. Instead, the UUID will be generated automatically when the field is left empty and the user switches to the next panel of the wizard.

Topic Category and Tags Panel

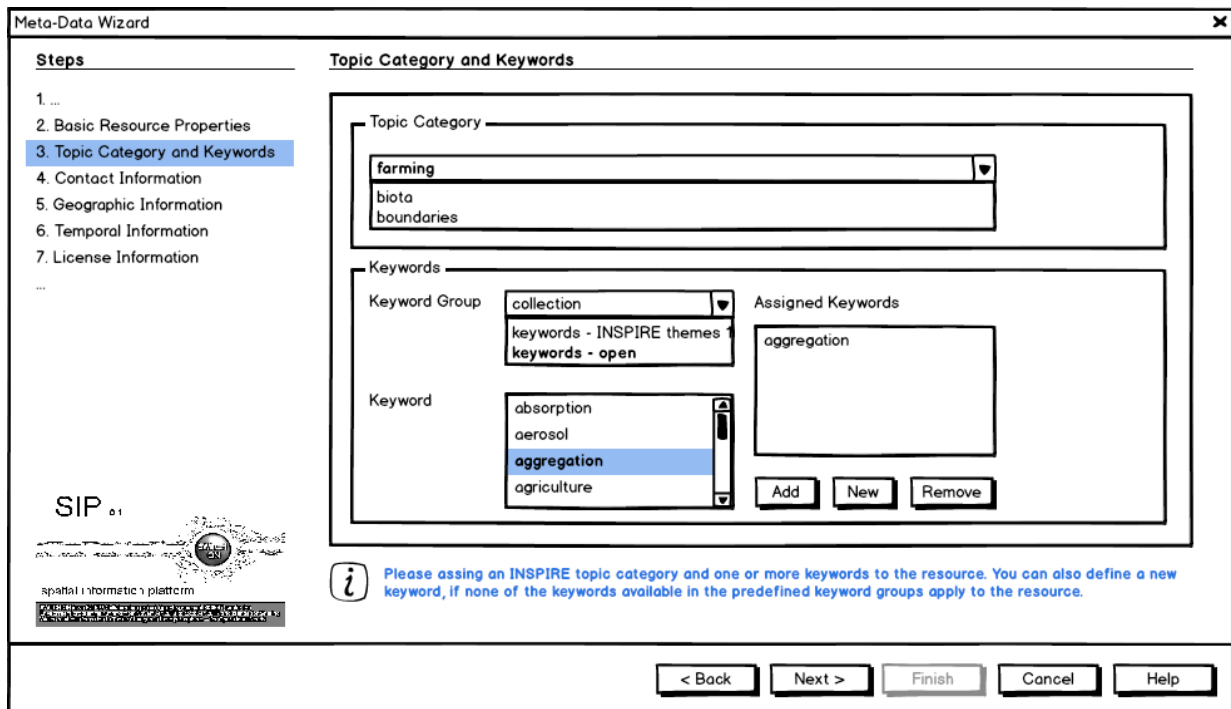


Figure 32: Topic Category and Tags Panel

Text to be shown in the Info Box when the respective input field receives focus:

- Topic Category: description of the selected tag
- Keyword Groups: description of the selected tag
- Keywords: description of the selected tag

Input fields which prevent the wizard from switching to the next panel when left blank:

- Topic Category

Input fields that are substituted with default values when left blank:

- n/a

Difference to the respective Panel in the Resource Editor:

- Here, also the generic Tags Editor Panel is used. However, instead of using "Tags" as labels, "Keywords" should be used as shown in the Mockup.
- Pressing the "New" button should not open the Tag Groups and Tag Editor" as this might confuse the user. Instead, a simple Introduce new Keyword Dialog should be shown. When the user confirms the new keyword by pressing the "OK" button in this dialog, the new keyword is created and assigned to the tag group "Keywords Open". Furthermore, the newly defined keyword is added to the "Assigned Keywords" list of the Topic Category and Tags Panel.

Resource Contact Information Panel

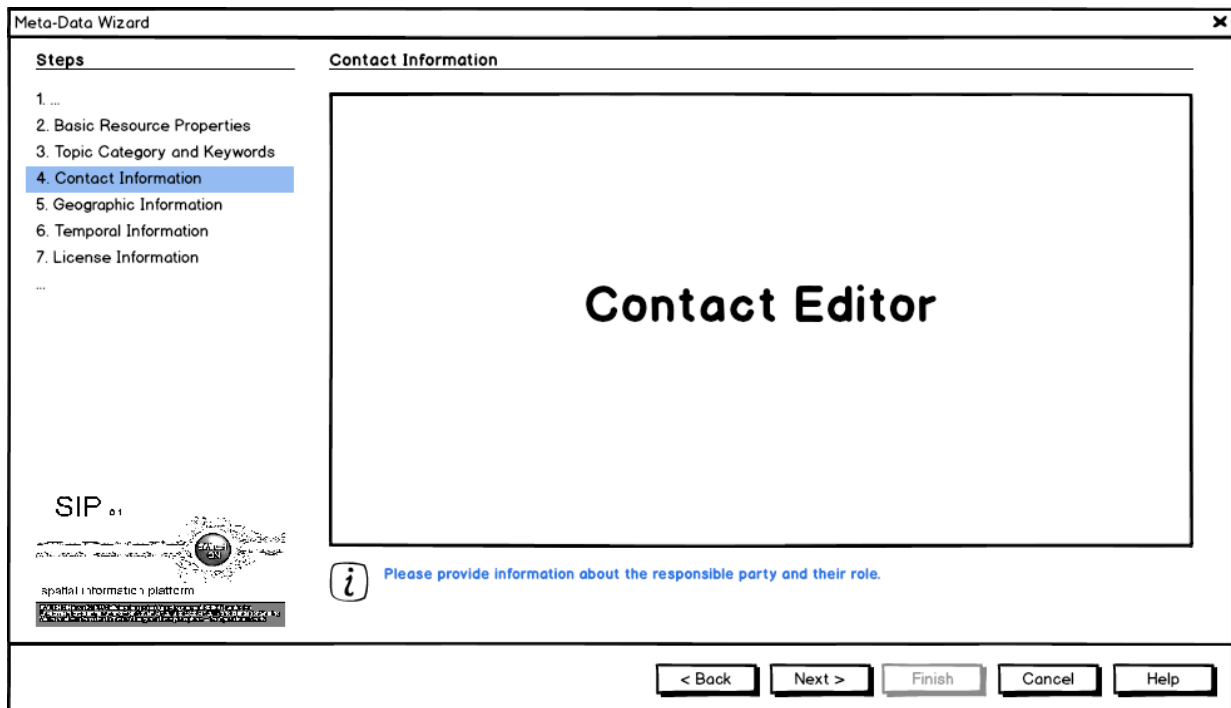


Figure 33: Resource Contact Information Panel

Text to be shown in the Info Box when the respective input field receives focus:

- Please enter the name of the organisation
- Please provide a description of the organisation
- Please provide a link to the website of the organisation
- Please provide the name of a contact person
- Please provide an email address of the contact person or organisation
- Please specify the role of the responsible party

Input fields which prevent the wizard from switching to the next panel when left blank:

- Organisation
- Description

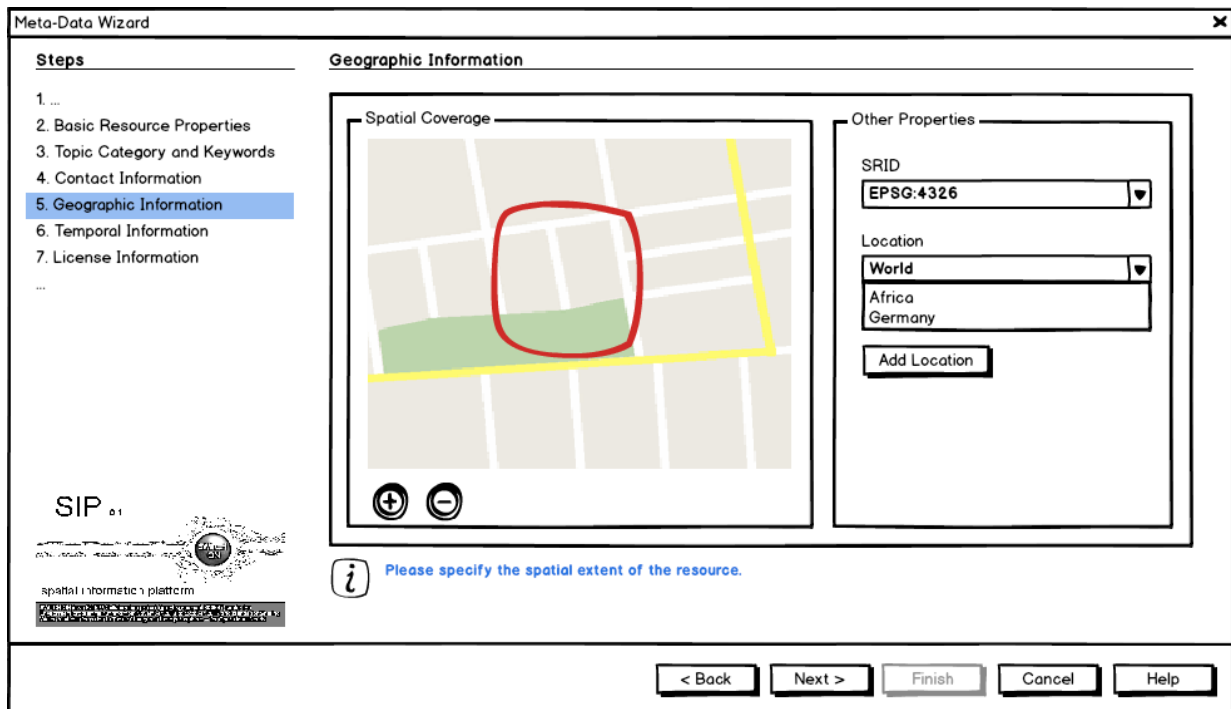
Input fields that are substituted with default values when left blank:

- role: "resourceProvider"

Difference to the respective Panel in the Contact Editor:

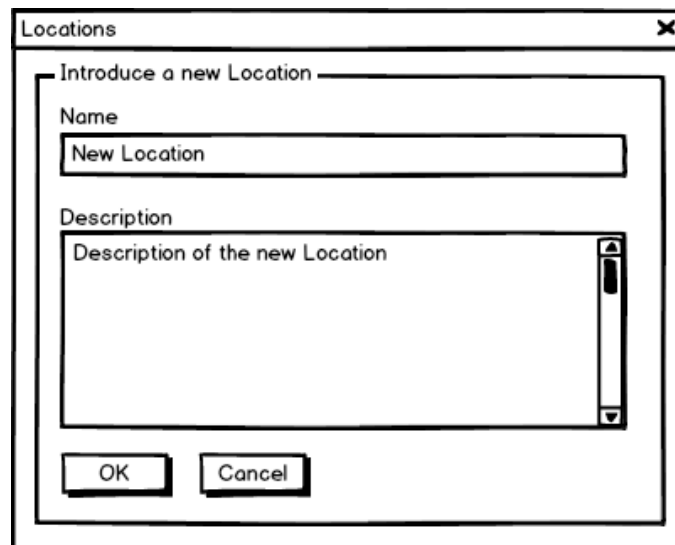
- n/a

Geographic Information Panel



The screenshot shows the 'Meta-Data Wizard' window, specifically the 'Geographic Information' panel. On the left, a 'Steps' list shows the current step is '5. Geographic Information'. The main area is divided into two sections: 'Spatial Coverage' and 'Other Properties'. The 'Spatial Coverage' section contains a map with a red rectangle highlighting a specific area. Below the map are zoom in (+) and zoom out (-) buttons. The 'Other Properties' section contains a 'SRID' dropdown menu set to 'EPSG:4326', a 'Location' dropdown menu set to 'World', and a list of locations: 'Africa' and 'Germany'. Below the list is an 'Add Location' button. At the bottom of the panel, there is an information icon and a message: 'Please specify the spatial extent of the resource.' The bottom of the window has navigation buttons: '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

Figure 34: Geographic Information Panel



The screenshot shows the 'Locations' dialog box. It has a title bar with a close button. The main area is titled 'Introduce a new Location'. It contains two input fields: 'Name' with the text 'New Location' and 'Description' with the text 'Description of the new Location'. Below the input fields are 'OK' and 'Cancel' buttons.

Figure 35: Introduce new Location Dialog

Text to be shown in the Info Box when the respective input field receives focus:

- Please select the spatial reference system of the resource
- Please specify a location of the resource or add a new one

Input fields which prevent the wizard from switching to the next panel when left blank:

- cismap Bounding Box

Input fields that are substituted with default values when left blank:

- SRID: "EPSG:4326"
- Location "World"

Difference to the respective Panel in the Resource Editor:

- Pressing the "Add Location" button should not open the Introduce new Location dialog.

Temporal Information Panel

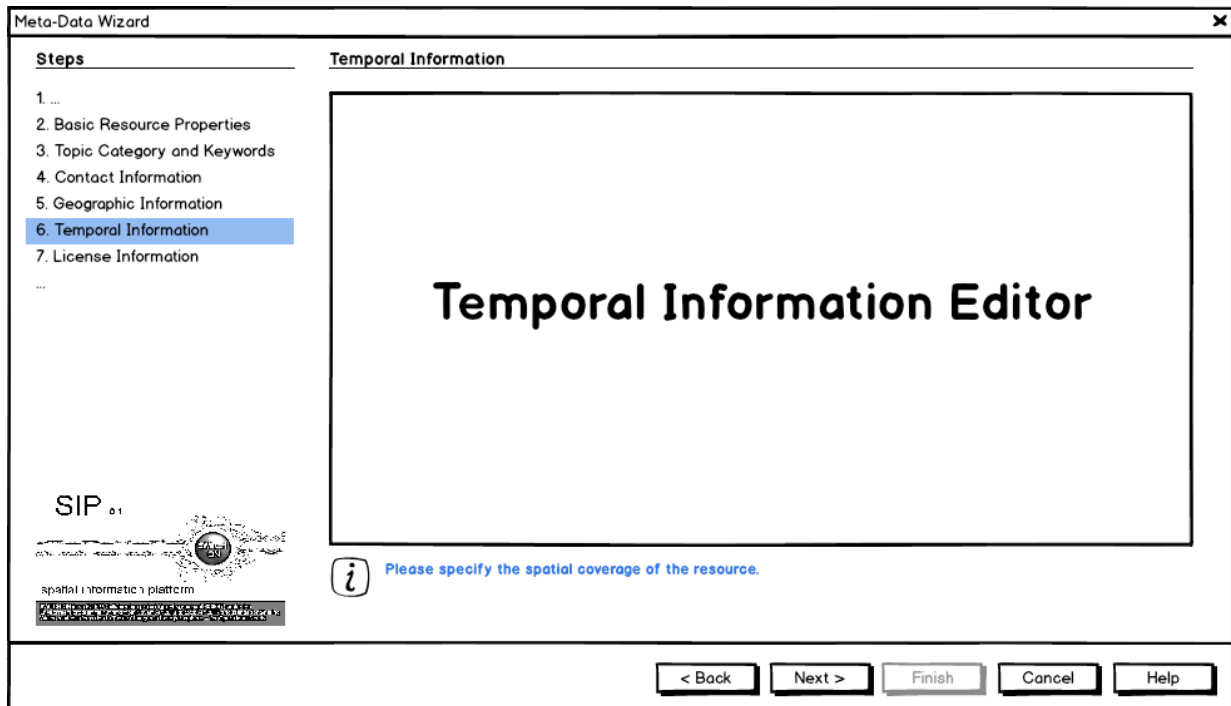


Figure 36: Temporal Information Panel

Text to be shown in the Info Box when the respective input field receives focus:

- Start Date: Please specify the start date of the temporal coverage of the resource.
- End Date: Please specify the end date of the temporal coverage of the resource. If no end date is provided, it is assumed that the data is continuously updated.
- Please specify the date of creation of the resource.
- Please specify the date of publication of the resource at the origin website, catalogue, etc.
- Please specify the date of last revision of the resource.

Input fields which prevent the wizard from switching to the next panel when left blank:

- Start Date

Input fields that are substituted with default values when left blank:

- n/a

Difference to the respective Panel in the Resource Editor:

- n/a

License Information Panel

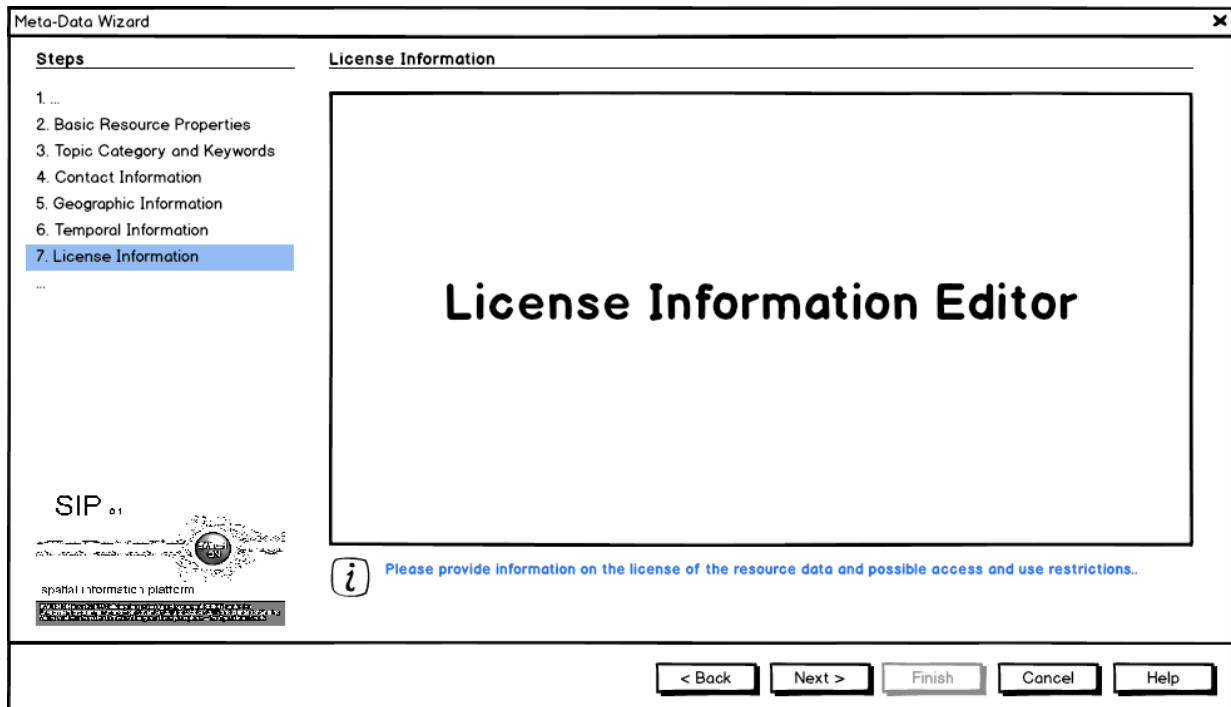


Figure 37: License Information Panel

Text to be shown in the Info Box when the respective input field receives focus:

- License Statement: Please provide a detailed description of the conditions for accessing, processing, re-distribution, etc. the resource data.
- Input fields which prevent the wizard from switching to the next panel when left blank:
- n/a

Input fields that are substituted with default values when left blank:

- Conditions for Access and Use: "No conditions apply"
- Limitations on Public Access: "No limitation"
- Conformity: "Not evaluated"

Difference to the respective Panel in the Resource Editor:

- n/a

Additional Meta-Data Wizard

The Additional Meta-Data Wizard can either be used as stand-alone Wizard to add an additional Meta-Data item (lineage, quality,) to an existing resource, or it is used from within the Meta-Data Wizard to add an additional Meta-Data item to a new resource. The Additional Meta-Data Wizard provides roughly the same functionality as the Meta-Data Editor. The Wizard should be used by end users while the editor should be used by administrators. When the wizard is executed as stand-alone wizard, the edit and delete functionality should be disabled, thus the first panel should be hidden.

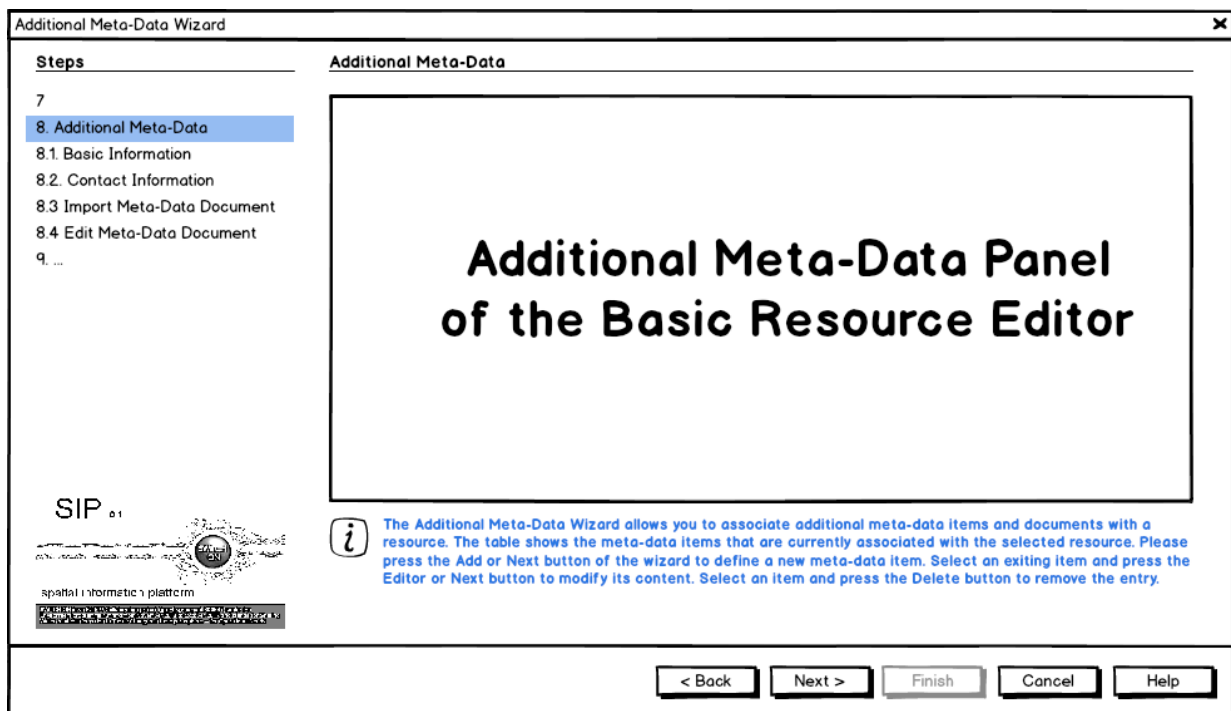


Figure 38: Additional Meta-Data Wizard

The next steps of the Meta-Data Wizard are implemented as distinct wizards that can also be used stand-alone. However, it should be possible to integrate the panels of those stand-alone wizards into the Meta-Data Wizard.

When the Meta-Data Wizard is executed to register a new Resource in the SIP, a default additional meta-data object has to be generated and added to the metadata array of the Resource Object, regardless of whether the optional Additional Meta-Data Wizard is shown or not.

The meta-data object "Auto generated SWITCH-ON Basic Meta-Data" of the type "basic meta-data" is automatically generated by the Wizard. The properties of this object are set to the following default values:

- language: eng
- type: basic meta-data
- name: Autogenerated SWITCH-ON Basic Meta-Data
description: Basic Meta-Data record created, derived or imported by the SWITCH-ON project according to the SWITCH-ON Standard Information Model (SIM) for Meta-Data for the SWITCH-ON Spatial Information Platform (SIP).

Default Contact object:

- name: use the name of the user that is logged-in in cids Navigator
- description: Sharing Water-related Information to Tackle Changes in the Hydrosphere – for Operational Needs (SWITCH-ON).
- organisation: SWITCH-ON
- role: pointOfContact
- url: <http://www.water-switch-on.eu/>

Text to be shown in the Info Box when the respective input field receives focus:

- n/a

Input fields which prevent the wizard from switching to the next panel when left blank:

- None. When no entry is selected in the table, the wizard will advance to step #9

Input fields that are substituted with default values when left blank:

- n/a

Difference to the respective Panel in the Resource Editor:

- n/a

Additional Meta-Data Wizard: Basic Information

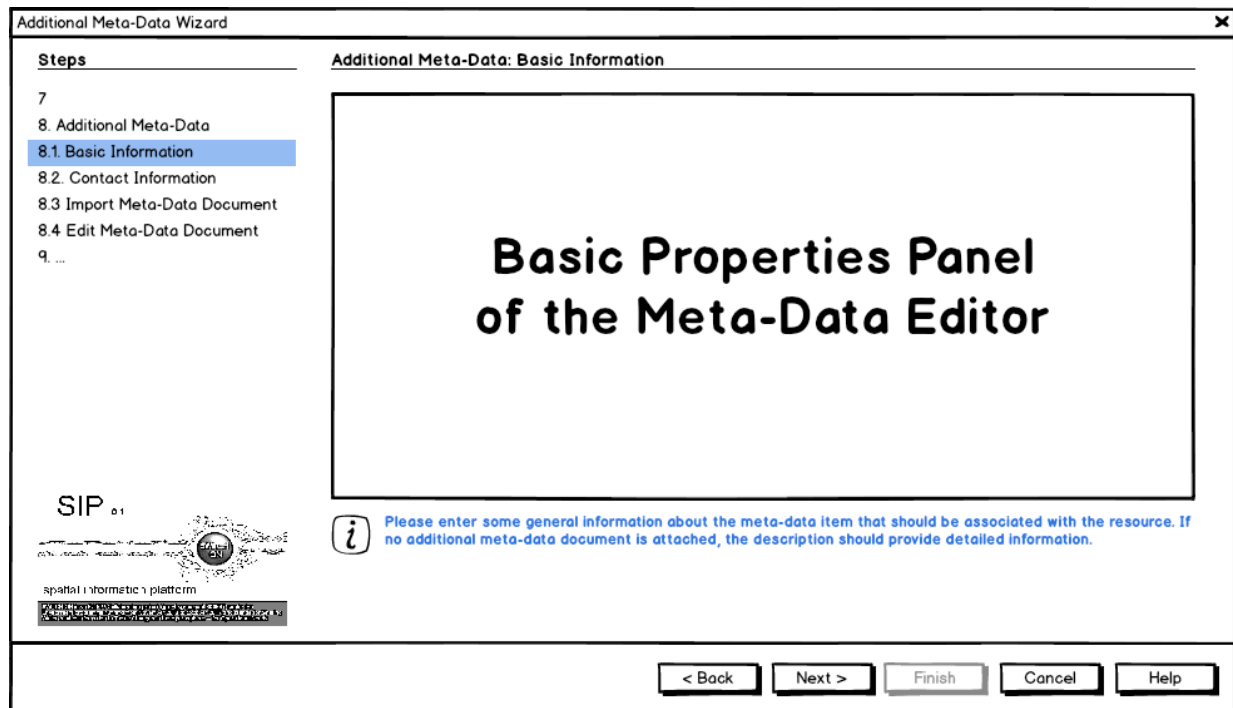


Figure 39: Additional Meta-Data Wizard: Basic Information

Text to be shown in the Info Box when the respective input field receives focus:

- Name: Please enter the name of the meta-data item
- Description: Please provide a comprehensive description of the meta-data item. If no meta-data document is attached, the description should contain the actual meta-information, e.g. on quality or lineage of the resource.
- Type: description of the selected tag
- UUID: Please enter a unique id of the meta-data item. If the field is left blank, a UUID will be automatically generated.
- Language: description of the selected tag

Input fields which prevent the wizard from switching to the next panel when left blank:

- Name
- Description
- Type

Input fields that are substituted with default values when left blank:

- Language: "eng"
- UUID: automatically generated

Difference to the respective Panel in the Resource Editor:

- "Generate" button of the UUID property is not shown, instead, the UUID will be generated automatically when the field is left empty and the user switches to the next panel of the wizard.
- input field for *creationDate* is not shown, instead the property is always set to the current date

Additional Meta-Data Panel: Contact Information

This panel is optional in certain Meta-Data Profiles. If it is not shown, the contact object is set to null.

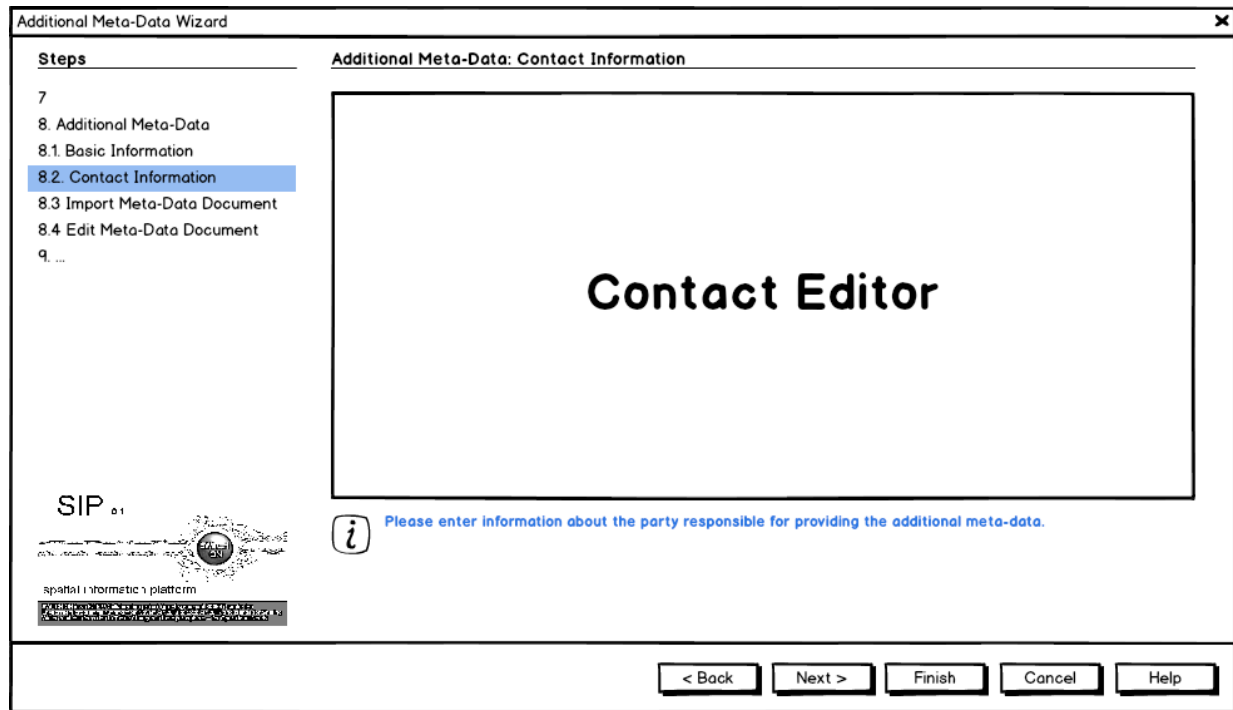


Figure 40: Additional Meta-Data Panel: Contact Information

Text to be shown in the Info Box when the respective input field receives focus:

- Please enter the name of the organisation
- Please provide a description of the organisation
- Please provide a link to the website of the organisation
- Please provide the name of a contact person
- Please provide an email address of the contact person or organisation
- Please specify the role of the responsible party

Input fields which prevent the wizard from switching to the next panel when left blank:

- Organisation
- Description

Input fields that are substituted with default values when left blank:

- role: "pointOfContact"

Difference to the respective Panel in the Contact Editor:

- n/a

Additional Meta-Data Wizard: Upload Meta-Data Document

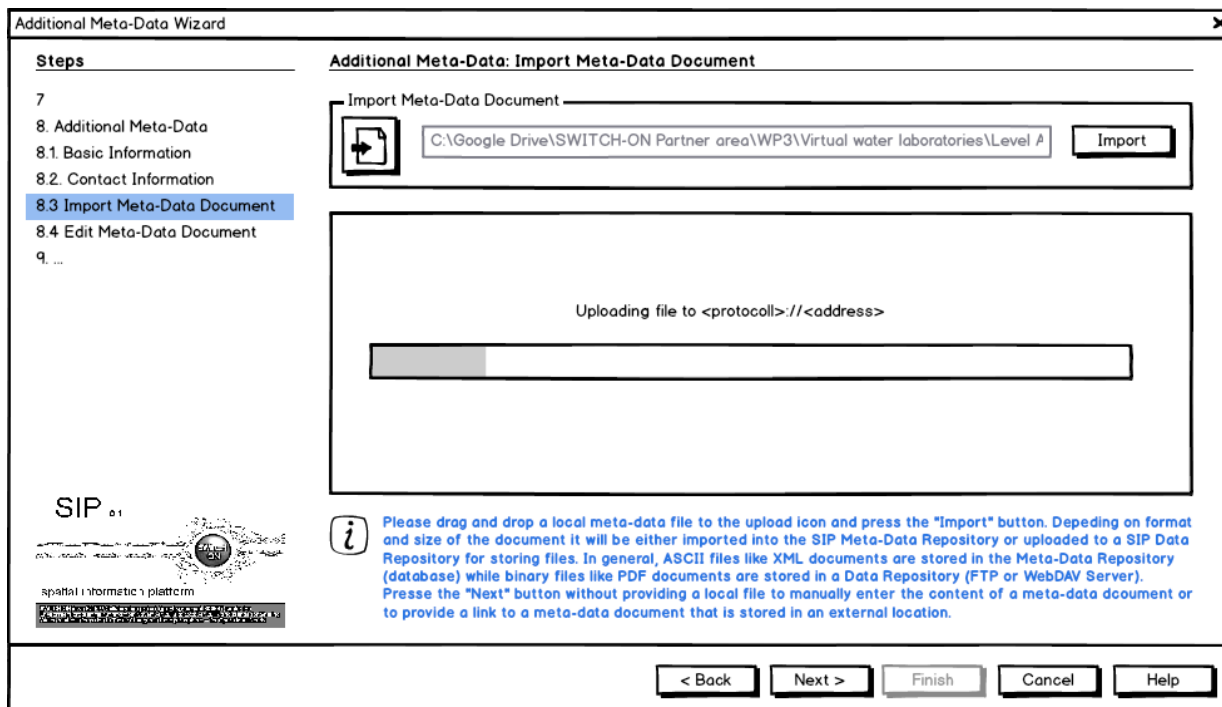


Figure 41: Additional Meta-Data Wizard: Upload Meta-Data Document

Text to be shown in the Info Box when the respective input field receives focus:

- n/a

Input fields which prevent the wizard from switching to the next panel when left blank:

- n/a: The Panel can be skipped entirely when no document for import is provided

Input fields that are substituted with default values when left blank:

- contentType: the Wizard should try to guess the content type from the file extension
- content and contentLocation: depending on the contentType and the size of the file, the wizard should decide whether to store the file content in the content attribute of meta-data object or to upload the file to a WebDAV server and store the URL of the remote file in the contentLocation attribute.

Difference to the respective Panel in the Meta-Data Editor:

- n/a

Additional Meta-Data Wizard: Edit Meta-Data Document

If the previous panel was the Upload Meta-Data Document Panel, this wizard panel is mandatory. However, in this case, the *content* and *contentLocation* input fields are disabled since either the content link or the actual content have already been provided by the previous panel (import).

This panel is optional in certain Meta-Data Profiles. If it is not shown, all properties of the Meta-Data Object that are collected by this panel are set to null.

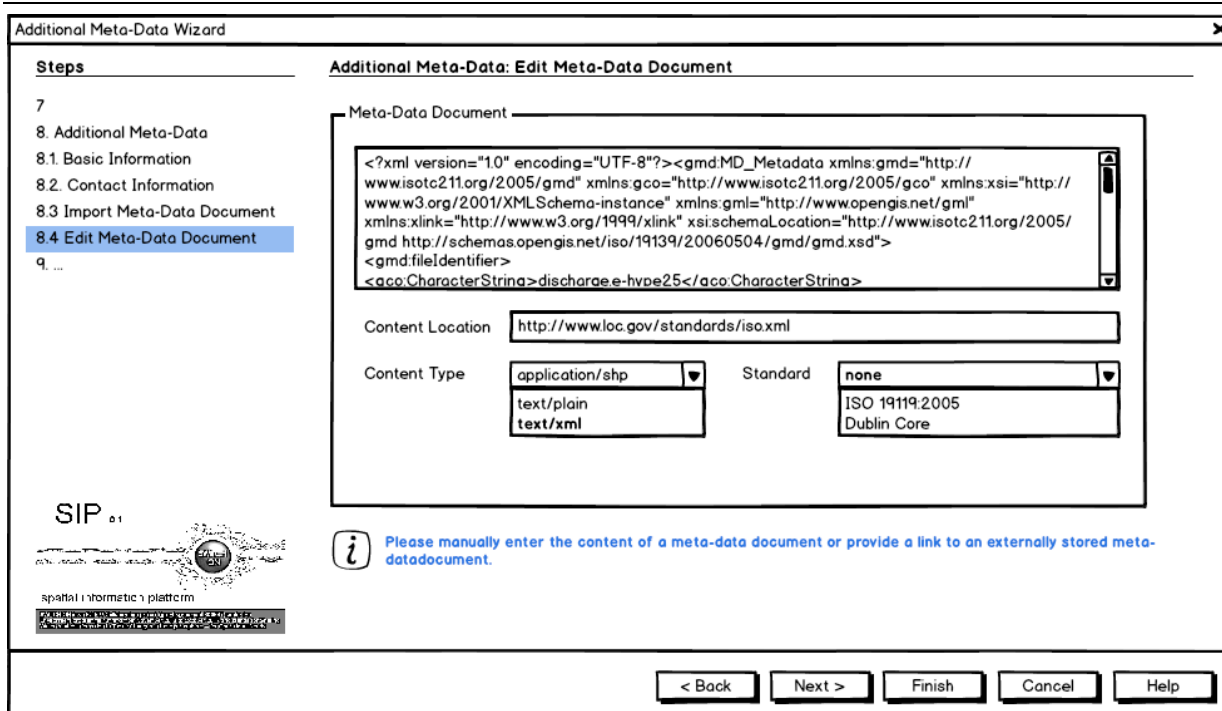


Figure 42: Additional Meta-Data Wizard: Edit Meta-Data Document

Text to be shown in the Info Box when the previous panel Upload Meta-Data Document Panel:

- The Content Location and the Content files have populated automatically by the Meta-Data Import. Go back to the previous step to select a different file for import.

Text to be shown in the Info Box when the respective input field receives focus:

- Content: Please enter a textual meta-data document that should be stored in the Meta-Data Repository. (not shown when the input field is disabled)
- Content: Please provide a link to an externally stored meta-data document, e.g. a PDF file. (not shown when the input field is disabled)
- Content Type / Standard: description of the selected tag

Input fields which prevent the wizard from switching to the next panel when left blank:

- content or contentLocation

Input fields that are substituted with default values when left blank:

- Standard: "none"
- Content Type: "application/octet-stream" (this is the default for unspecified or unknown content type)

Difference to the respective Panel in the Meta-Data Editor:

- n/a: this panel does not exist in the Meta-Data Editor

Representation Wizard

The Representation Wizard is mandatory in all Meta-Data Profiles (see Meta-Data Wizard Configuration), thus it is always shown in Meta-Data Wizard. However, some of the panels are optional and default values have to be set when the panels are not shown.

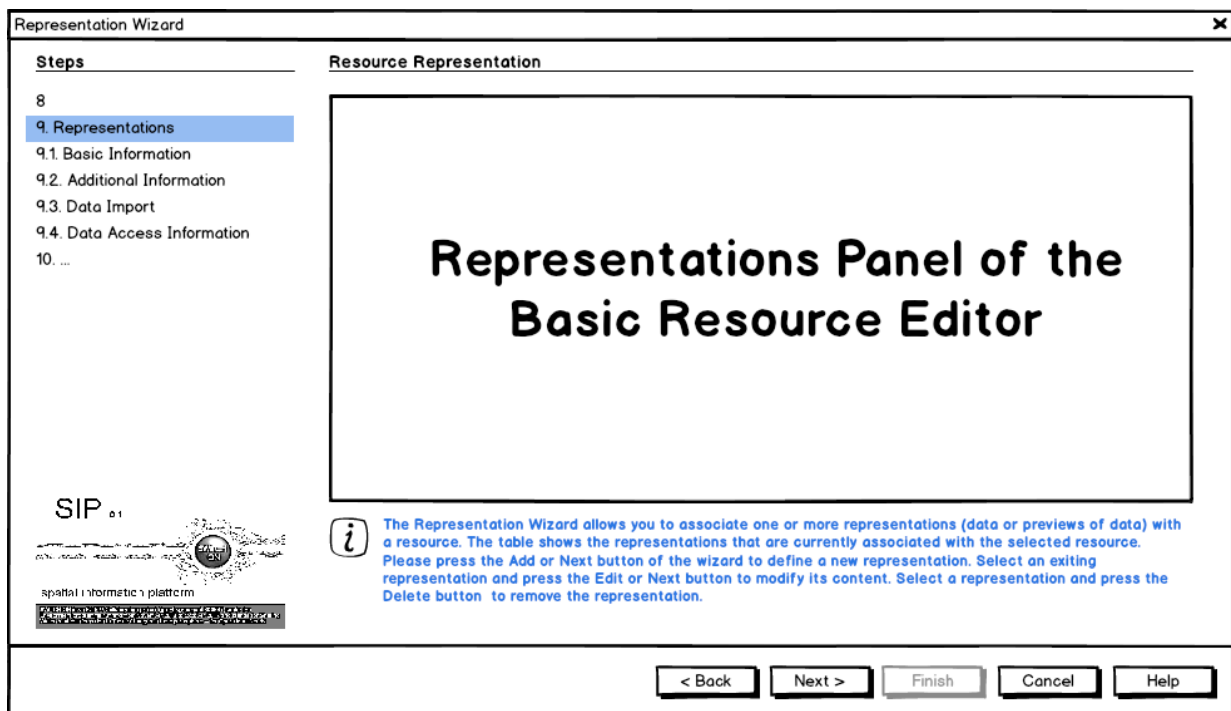


Figure 43: Representation Wizard

The Representation Wizard can either be used as stand-alone Wizard to add representations to an existing resource, or it is used from within the Meta-Data Wizard to add a representation to a new resource. The Representation Wizard provides roughly the same functionality as the Representation Editor. The wizard should be used by end users while the editor should be used by administrators. When the wizard is executed as stand-alone wizard, the edit and delete functionality should be disabled, thus the first panel should be hidden.

Text to be shown in the Info Box when the respective input field receives focus:

- n/a

Input fields which prevent the wizard from switching to the next panel when left blank:

- When no entry is selected in the table, the wizard will advance to step #10 only if the table is not empty. At least one representation must be associated with a resource.

Input fields that are substituted with default values when left blank:

- n/a

Difference to the respective Panel in the Representation Editor:

- n/a

Representation Wizard: Basic Information

This panel is optional or not available in certain Wizard Profiles (see Meta-Data Wizard Configuration). When this panel is not shown, the following default values have to be set by the wizard:

- name: \$name of the resource + " Representation"
- description: " Representation of Resource " + \$name of the resource
- type: "original data"
- uuid: automatically generated

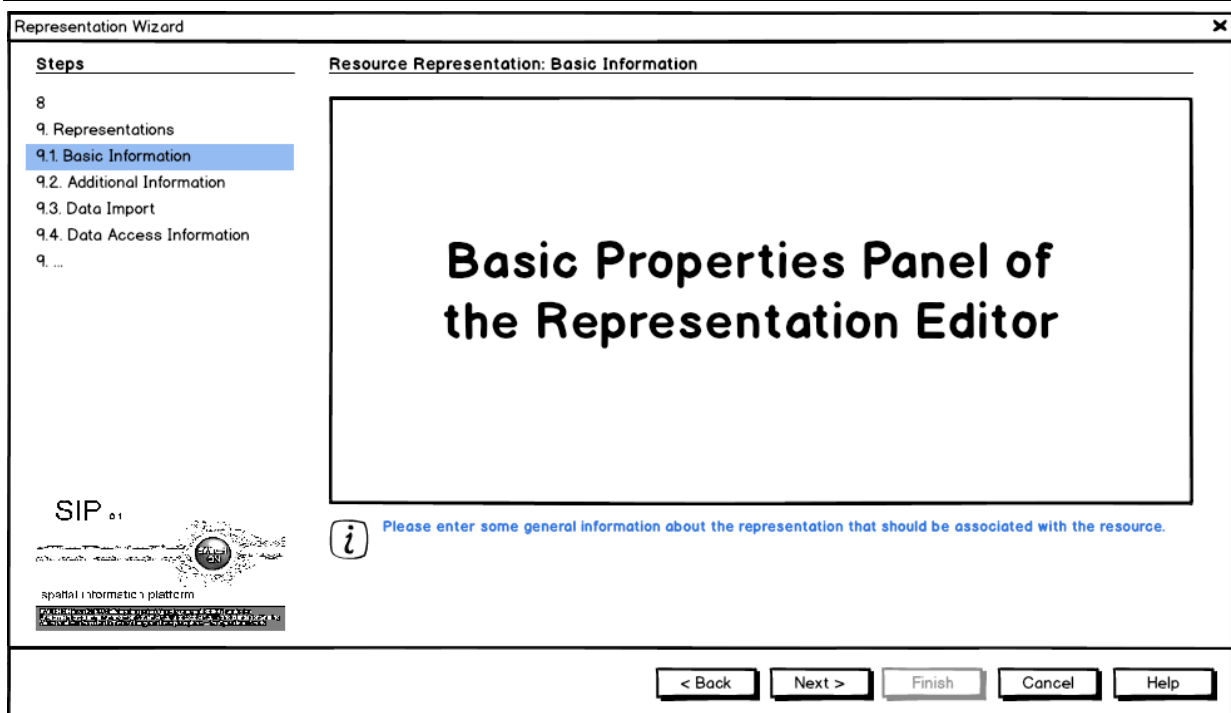


Figure 44: Representation Wizard: Basic Information

Text to be shown in the Info Box when the respective input field receives focus:

- Name: Please enter the name of the representation
- Description: Please provide a comprehensive description of the representation.
- Type: description of the selected tag
- UUID: Please enter a unique id of the representation item. If the field is left blank, a UUID will be automatically generated.

Input fields which prevent the wizard from switching to the next panel when left blank:

- Name
- Description
- Type

Input fields that are substituted with default values when left blank:

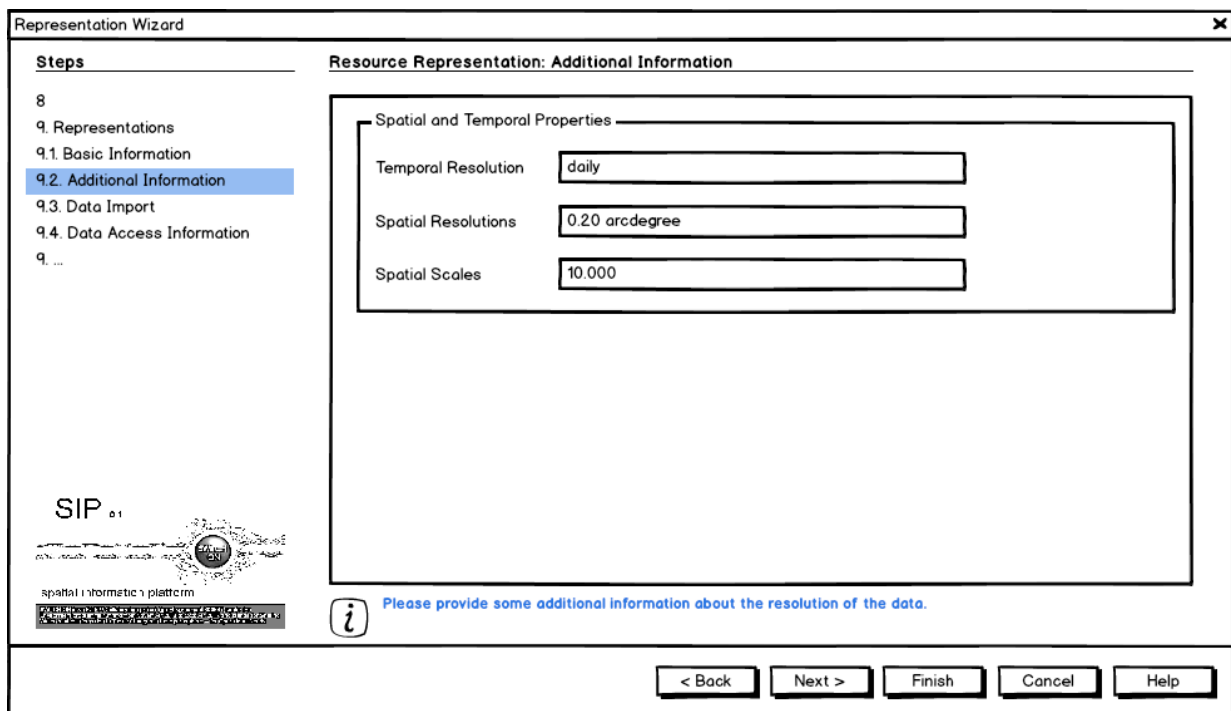
- Type: "external data" (first item in list box, by default)
- UUID: automatically generated when left blank, "Generate" button not shown

Difference to the respective Panel in the Resource Editor:

- "Generate" button of the UUID property is not shown, instead, the UUID will be generated automatically when the field is left empty and the user switches to the next panel of the wizard.

Representation Wizard: Additional Information

This optional panel is used to collect additional information on the representation. When this panel is not shown, the properties collected by this panel are set to null in the Representation Object



Representation Wizard

Steps

- 8
- 9. Representations
- 9.1. Basic Information
- 9.2. Additional Information**
- 9.3. Data Import
- 9.4. Data Access Information
- 9. ...

Resource Representation: Additional Information

Spatial and Temporal Properties

Temporal Resolution:

Spatial Resolutions:

Spatial Scales:

SIP 0.1

spatial information platform

Please provide some additional information about the resolution of the data.

< Back **Next >** **Finish** **Cancel** **Help**

Figure 45: Representation Wizard: Additional Information

Text to be shown in the Info Box when the respective input field receives focus:

- Temporal Resolution: Please specify the temporal resolution of the data, e.g. daily
- Spatial Resolution: Please specify please spatial resolution of the data
- Spatial Scale: Please specify the spatial scale of the data if the data is a map (e.g. 1:2.000 to 1:10.000)

Input fields which prevent the wizard from switching to the next panel when left blank:

- none

Input fields that are substituted with default values when left blank:

- none

Difference to the respective Panel in the Representation Editor:

- n/a

Representation Wizard: Upload Data Document

Text to be shown in the Info Box when the respective input field receives focus:

- n/a

Input fields which prevent the wizard from switching to the next panel when left blank:

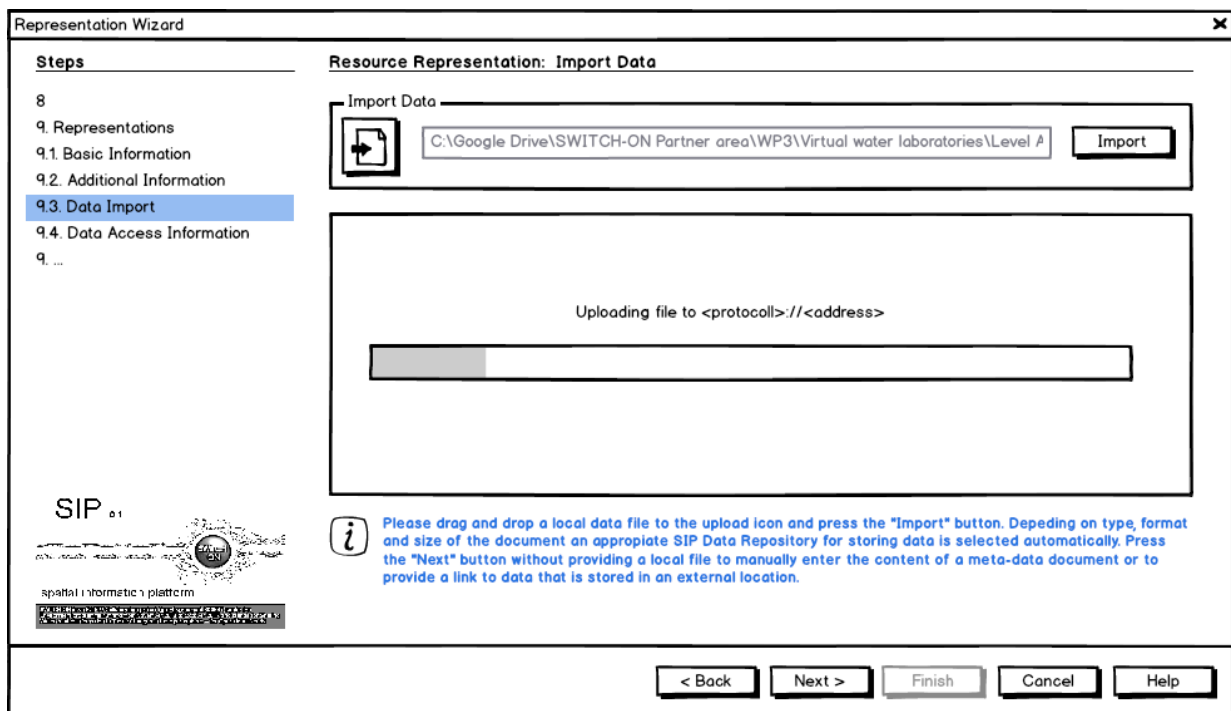
- n/a

Input fields that are substituted with default values when left blank:

- see next wizard panel

Difference to the respective Panel in the Representation Editor:

- n/a



Representation Wizard

Steps

- 8
- 9. Representations
- 9.1. Basic Information
- 9.2. Additional Information
- 9.3. Data Import
- 9.4. Data Access Information
- 9. ...

Resource Representation: Import Data

Import Data

C:\Google Drive\SWITCH-ON Partner area\WP3\Virtual water laboratories\Level A

Import

Uploading file to <protocol>://<address>

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Please drag and drop a local data file to the upload icon and press the "Import" button. Depending on type, format and size of the document an appropriate SIP Data Repository for storing data is selected automatically. Press the "Next" button without providing a local file to manually enter the content of a meta-data document or to provide a link to data that is stored in an external location.

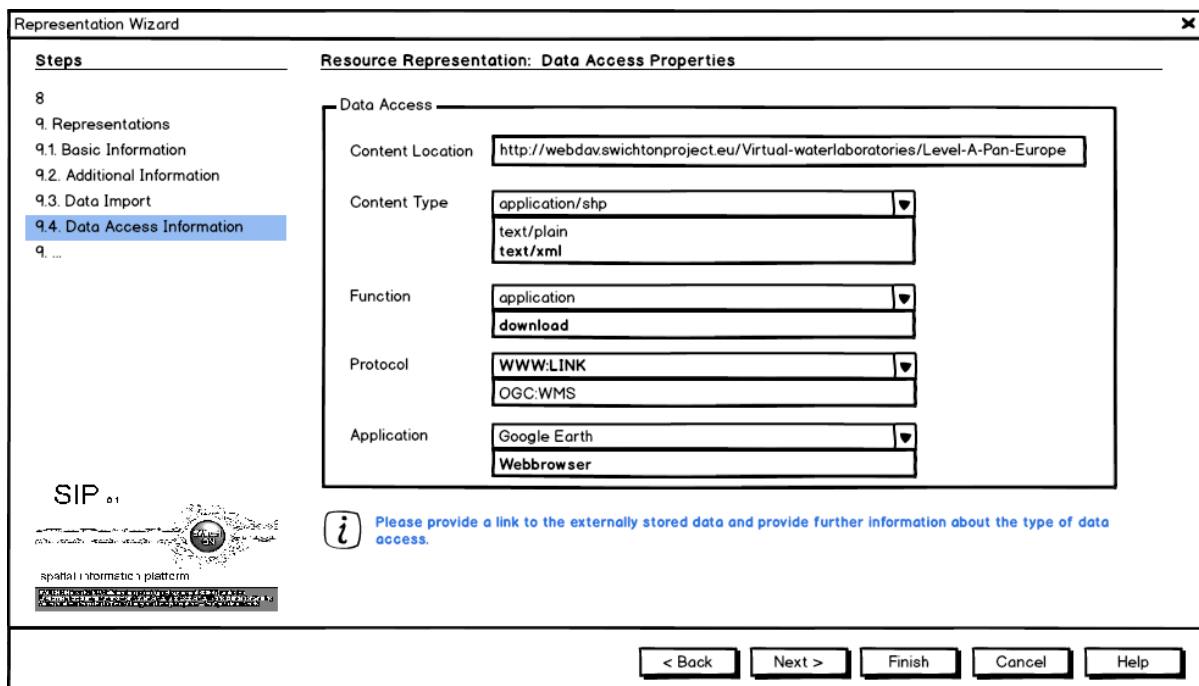
< Back Next > Finish Cancel Help

Figure 46: Representation Wizard: Upload Data Document

Representation Wizard: Data Access Properties

If the previous panel was the Upload Data Panel, the *contentLocation* input field is disabled since the content link has already been provided by the previous panel (import).

If the previous panel was the Upload Data Panel, *contentType*, function, protocol and application should have been guessed automatically by the upload function. E.g. if the data is uploaded to a WebDAV, the function is "download".



Representation Wizard

Steps

- 8
- 9. Representations
- 9.1. Basic Information
- 9.2. Additional Information
- 9.3. Data Import
- 9.4. Data Access Information
- 9. ...

Resource Representation: Data Access Properties

Data Access

Content Location: http://webdavswitchonproject.eu/Virtual-waterlaboratories/Level-A-Pan-Europe

Content Type: application/shp
text/plain
text/xml

Function: application
download

Protocol: WWW:LINK
OGC:WMS

Application: Google Earth
Webbrowser

SIP

spatial | thormetic | platform

Please provide a link to the externally stored data and provide further information about the type of data access.

< Back Next > Finish Cancel Help

Figure 47: Representation Wizard: Data Access Properties

Text to be shown in the Info Box when the previous panel was Upload Data Panel:

- The content location link has been populated automatically by the Data Import. Go back to the previous step to select a different file for import. Please provide further information about the type of data access.

Text to be shown in the Info Box when the respective input field receives focus:

- contentLocation: Please provide a link to the externally stored data, e.g. a ZIP file. (not shown when the input field is disabled)
- All other combo boxes: Description of the selected tag

Input fields which prevent the wizard from switching to the next panel when left blank:

- all fields are required (set to default)

Input fields that are substituted with default values when left blank (those values should be preselected unless they have been guessed by the Upload Data Panel):

- Content Type: "application/octet-stream" (this is the default for unspecified or unknown content type)
- function: "download"
- protocol: "WWW:LINK"
- application: "Webbrowser"

Difference to the respective Panel in the Representation Editor:

- The "Add" buttons to add a new protocol or application are hidden in the wizard panel.

Relationship Wizard

The Relationship Wizard can either be used as stand-alone Wizard to establish a new relationship between exiting resources, or it is used from within the Meta-Data Wizard to establish a relationship between a new resource and some existing resources. The Relationship Wizard provides roughly the same functionality as the Relationship Editor. The wizard should be used by end users while the editor should be used by administrators.

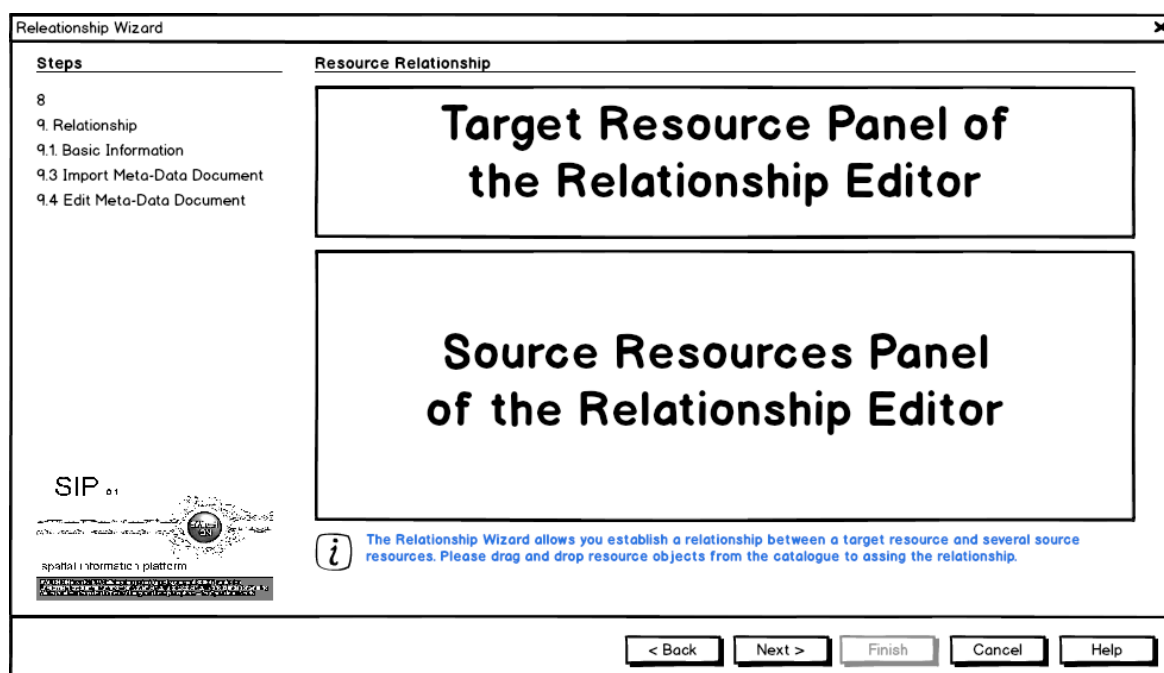


Figure 48: Relationship Wizard

Although several meta-data objects can be associated with one Relationship Object, this wizard currently supports adding only one meta-data object.

The Relationship Wizard can only be used to establish a relationship between a given Target Resource and one or more Source Resources. If the wizard is executed as stand-alone wizard, the Target Resource Panel is active and accepts dropping of Resource Objects from the Catalogue. Please refer to the description of the Relationship Editor for more details. If the wizard is used as part of the Meta-Data Wizard, the Target Resource Panel is inactive, since the Target Resource is the new resource that is created by the Meta-Data Wizard.

Text to be shown in the Info Box when the respective input field receives focus:

- Target Resource: Please define the target resource of this relationship (e.g. result of an experiment) by dropping a Resource Object from the catalogue. (message not shown when Target Resource Panel is inactive)
- Source Resources: Please define the source resources of this relationship (e.g. inputs of an experiment) by dropping one or more Resource Objects from the catalogue.

Input fields which prevent the wizard from switching to the next panel when left blank:

- Target Resource
- Source Resources: at least one source resource is needed

Input fields that are substituted with default values when left blank:

- When the wizard is embedded into the Meta-Data Wizard, the Target Resource Panel is predefined by the Meta-Data Wizard

Difference to the respective Panel in the Representation Editor:

- When the wizard is embedded into the Meta-Data Wizard, the Target Resource Panel is disabled

Relationship Wizard: Basic Information

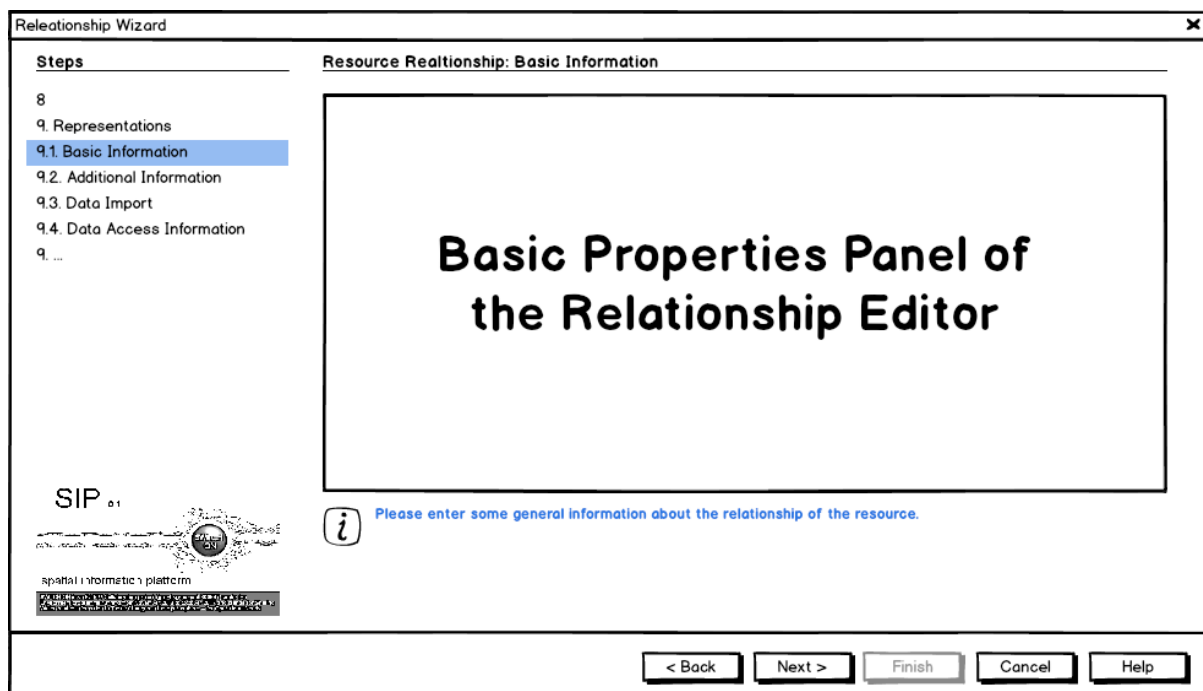


Figure 49: Relationship Wizard: Basic Information

Text to be shown in the Info Box when the respective input field receives focus:

- Name: Please enter the title of the relationship, e.g. the name of the experiment
- Description: Please provide a brief description of the relationship. The possibility to enter a detailed description and to upload protocols documents will be provided in a further step.
- Type: description of the selected tag
- UUID: Please enter a unique id of the relationship item. If the field is left blank, a UUID will be automatically generated.

Input fields which prevent the wizard from switching to the next panel when left blank:

- Name
- Description
- Type

Input fields that are substituted with default values when left blank:

- UUID: automatically generated when left blank, "Generate" button not shown

Difference to the respective Panel in the Relationship Editor:

- "Generate" button of the UUID property is not shown. Instead, the UUID will be generated automatically when the field is left empty and the user switches to the next panel of the wizard.

Relationship Wizard: Import Meta-Data Document

This part of the wizard is used to add a new Meta-Data Object to the Relationship Object that is created by the Wizard. The Meta-Data Object stores e.g. the protocol of an experiment. In contrast to the Additional Meta-Data Wizard, the Relationship Wizard does not collect basic and contact information about the Meta-Data Object. Instead, default values are set by the wizard automatically.

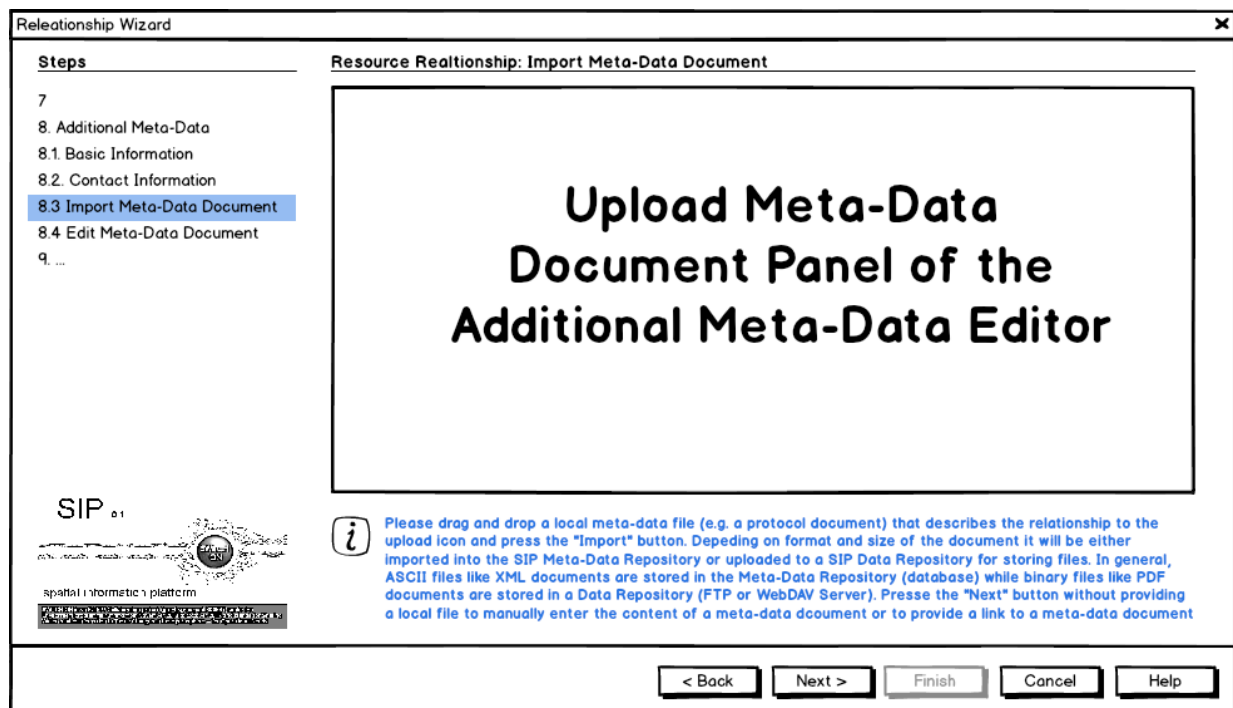


Figure 50: Relationship Wizard: Import Meta-Data Document

Text to be shown in the Info Box when the respective input field receives focus:

- n/a



Input fields which prevent the wizard from switching to the next panel when left blank:

- n/a: panel can be skipped entirely when no document for import is provided

Properties of the Meta-Data Object that are substituted with default values by the wizard:

- name: \$name of the relationship + " Meta-Data"
- description: " Meta-Data of the " + \$name of the relationship
- type: "relationship meta-data"
- standard: "none"
- contentType: the Wizard should try to guess the content type from the file extension
- content and contentLocation: depending on the contentType and the size of the file, the wizard should decide whether to store the file content in the content attribute of meta-data object of to uploaded the file to a WebDAV server and store the URL of the remote file in the contentLocation attribute.

Difference to the respective Panel in the Additional Meta-Data Wizard:

- n/a

Relationship Wizard: Edit Meta-Data Document

If the previous panel was the Upload Meta-Data Document Panel, this wizard panel is mandatory. However, in this case, the *content* and *contentLocation* input fields are disabled since either the content link or the actual content have already been provided by the previous panel (import).

If both the Import Meta-Data Document and Edit Meta-Data Document are not shown (only possible in a Custom Meta-Data Profile), the meta-data object of the relationship object is set to null.

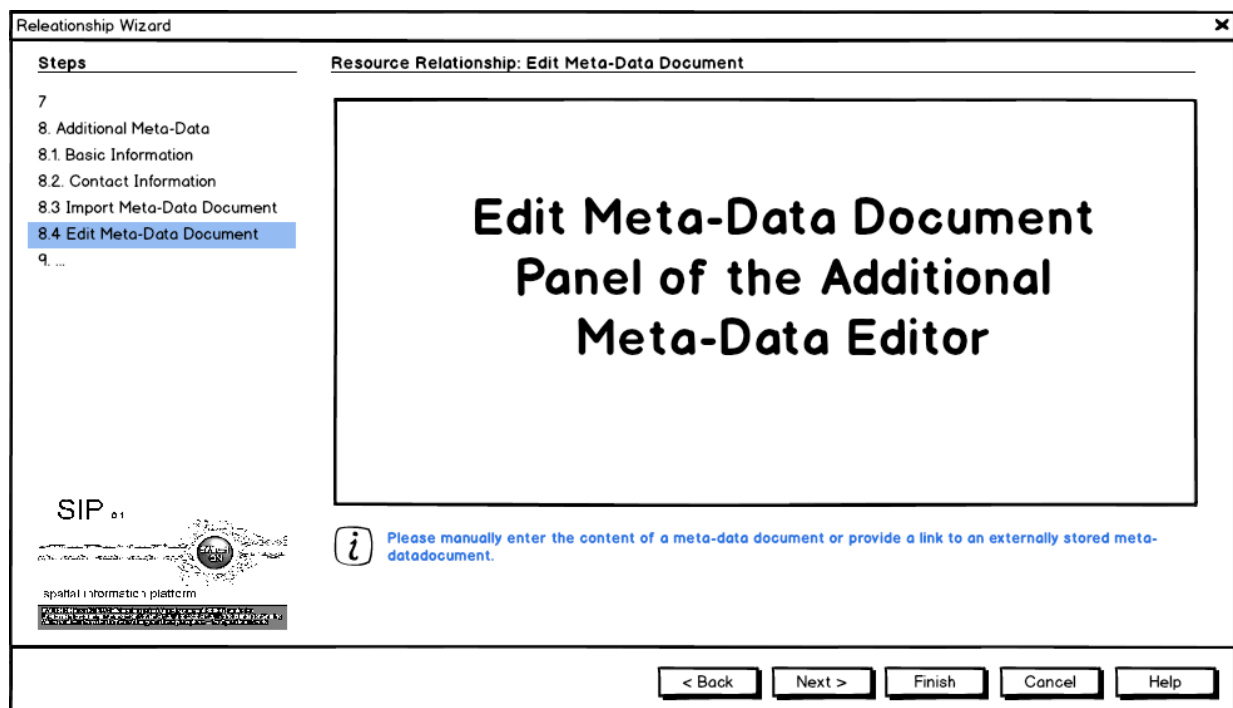


Figure 51: Relationship Wizard: Edit Meta-Data Document

Text to be shown in the Info Box when the previous panel Upload Meta-Data Document Panel:

- The Content Location and the Content files have populated automatically by the Meta-Data Import. Go back to the previous step to select a different file for import.



Text to be shown in the Info Box when the respective input field receives focus:

- Content: Please enter a textual meta-data document that should be stored in the Meta-Data Repository. (not shown when the input field is disabled)
- Content: Please provide a link to an externally stored meta-data document, e.g. a PDF file that represents the experiment result. (not shown when the input field is disabled)
- Content Type / Standard: description of the selected tag

Input fields which prevent the wizard from switching to the next panel when left blank:

- Content or ContentLocation

Input fields that are substituted with default values when left blank:

- Content Type: "application/octet-stream" (this is the default for unspecified or unknown content type)

Difference to the respective Panel in the Additional Meta-Data Editor:

- "Standard" is not shown