

# DATA HIERARCHY CONFIGURATION

## DATA HIERARCHY EDITOR TOOL

06 NOVEMBER 2023 | JITHU MURUGAN

# USAGE

## How to launch the tool

Follow the below given steps to open the tool

- Open PASTA Application
- Go to **System | Data Hierarchy Editor** or press **F8**
- The editor tool will be opened with the loaded data from the database as shown in the picture

Data Hierarchy Editor

Edit the data hierarchy for the PASTA-ELN projects

SAVE HELP CANCEL

Data Type Structure level 0 Projects Enter the IRI for the type > + ADD - DELETE

Metadata Group default Enter the new group to be added + ADD - DELETE

Metadata Form Editor

	NAME	QUERY	LIST	UNIT	IRI	MANDATORY	DELETE	RE-ORDER
1	-name	What is the name of the project?				<input type="radio"/>	<input type="button" value="DELETE"/>	<input type="button" value="RE-ORDER"/>
2	-tags	What are the tags associated with the project?				<input type="radio"/>	<input type="button" value="DELETE"/>	<input type="button" value="RE-ORDER"/>
3	status	What is the project status	active,pause,passive...			<input type="radio"/>	<input type="button" value="DELETE"/>	<input type="button" value="RE-ORDER"/>
4	objective	What is the objective?				<input type="radio"/>	<input type="button" value="DELETE"/>	<input type="button" value="RE-ORDER"/>
5	comment	#tags comments remarks :field:value:				<input type="radio"/>	<input type="button" value="DELETE"/>	<input type="button" value="RE-ORDER"/>

+ ADD METADATA GROUP

SHOW/HIDE ATTACHMENTS

# DATA HIERARCHY EDITOR

## Data type tools

1

2

3

4

5

Edit the data hierarchy for the PASTA-  
N projects

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Metadata Group default Enter the new group to be added + ADD - DELETE

Metadata Form Editor

	NAME	QUERY	LIST	UNIT	IRI	MANDATORY	DELETE	RE-ORDER
1	-name	What is the name of the project?				<input type="radio"/>	<input type="button" value="⊗"/>	<input type="button" value="⬆"/>
2	-tags	What are the tags associated with the project?				<input type="radio"/>	<input type="button" value="⊗"/>	<input type="button" value="⬆"/>
3	status	What is the project status	active,paused,passive...			<input type="radio"/>	<input type="button" value="⊗"/>	<input type="button" value="⬆"/>
4	objective	What is the objective?				<input type="radio"/>	<input type="button" value="⊗"/>	<input type="button" value="⬆"/>
5	comment	#tags comments remarks :field:value:				<input type="radio"/>	<input type="button" value="⊗"/>	<input type="button" value="⬆"/>

+ ADD METADATA GROUP

SHOW/HIDE ATTACHMENTS

1. Select the **data type** to be edited from the combo-box list
2. Edit the **displayed title** of the selected type
3. Edit the **Internationalized Resource Identifier (IRI)** associated with the selected type
4. Add a new **type** to the list
5. Delete the selected **type** from the list

# DATA HIERARCHY EDITOR

## Data type tools: Add new type

The screenshot shows the 'Data Hierarchy Editor' interface. At the top, there are buttons for 'SAVE', 'HELP', and 'CANCEL'. Below these, there are two main sections: 'Data Type' and 'Metadata Group'. The 'Data Type' section has a dropdown menu for 'Structure level 0', a text input for 'Projects', and a text input for 'Enter the IRI for the type'. A red box highlights the '+ ADD' button in this section, with a red arrow and the number '1' pointing to it. The 'Metadata Group' section has a dropdown menu for 'default', a text input for 'Enter the new group to be added', and '+ ADD' and '- DELETE' buttons. Below these is the 'Metadata Form Editor' section, which contains a table with columns 'NAME' and 'What is the name of...'. The table has 5 rows with the following data:

	NAME	What is the name of...
1	-name	What is the name of...
2	-tags	What are the tags a...
3	status	What is the project...
4	objective	What is the objectiv...
5	comment	#tags comments re...

Overlaid on the interface is a 'Create New Type' dialog box. It has two input fields: 'Title in the hierarchy' with the placeholder text 'Enter the Data Type title for the hierarchy' and 'Displayed title' with the placeholder text 'Enter the displayed title of the Data Type'. Red arrows and numbers '2' and '3' point to these fields. At the bottom of the dialog is a checkbox labeled 'Is this a structural Type?' with a red arrow and number '4' pointing to it. The dialog also has 'CANCEL' and 'OK' buttons.

1. Click “+ Add” button to open the “**Create New Type**” window
2. Enter the **title** for the type
3. Enter the **displayed title** to be associated with the type
4. Select the check-box if you need to add a structure level type (x0, x1,...xn)
  - If checked, the **title** will be auto-populated

# DATA HIERARCHY EDITOR

## Data type tools: Add new type

**Data Hierarchy Editor**

Edit the data hierarchy for the PASTA-ELN projects

SAVE HELP CANCEL

Data Type: Structure level 0 Projects Enter the IRI for the type > + ADD - DELETE

Metadata Group: default Enter the new group to be added + ADD - DELETE

Metadata Form Editor

	NAME	
1	-name	What is the name of the project
2	-tags	What are the tags associated with the project
3	status	What is the project status
4	objective	What is the objective of the project
5	comment	#tags comments related to the project

**Create New Type**

Title in the hierarchy: Enter the Data Type title for the hierarchy

Displayed title: Enter the displayed title of the Data Type

Is this a structural Type?

CANCEL OK

**Create New Type**

Title in the hierarchy: Structure level 3

Displayed title: Enter the displayed title of the Data Type

Is this a structural Type?

CANCEL OK

# DATA HIERARCHY EDITOR

## Data type metadata table with groups

The screenshot shows the 'Data Hierarchy Editor' window. At the top, there are buttons for 'SAVE', 'CANCEL', and 'OK'. Below these, there are fields for 'Data Type' (set to 'Structure level 0'), 'Projects', and 'Enter the IRI for the type'. A red box highlights the 'Metadata Group' section, which includes a dropdown menu (set to 'default'), an input field 'Enter the new group to be added', and '+ ADD' and '- DELETE' buttons. Below this is the 'Metadata Form Editor' table. At the bottom, there are buttons for '+ ADD METADATA GROUP' and 'SHOW/HIDE ATTACHMENTS'. Red callouts 1-6 point to various elements: 1 points to the 'Metadata Group' dropdown, 2 points to the 'Enter the new group to be added' input, 3 points to the '+ ADD' button, 4 points to the '- DELETE' button, 5 points to the 'MANDATORY' column in the table, and 6 points to the '+ ADD METADATA GROUP' button.

	NAME	QUERY	LIST	UNIT	IRI	MANDATORY	DELETE	RE-ORDER
1	-name	What is the name of the project?				<input type="radio"/>		
2	-tags	What are the tags associated with the project?				<input type="radio"/>		
3	status	What is the project status	active,paused,passive...			<input type="radio"/>		
4	objective	What is the objective?				<input type="radio"/>		
5	comment	#tags comments remarks :field:value:				<input type="radio"/>		

1. Select the **metadata group** from the combo-box associated with the selected type
2. Enter the new **metadata group** name to be added
3. Add a new **metadata group**
  - When a new group is added, the **metadata table** will be cleared and empty set is associated with the group by default
4. Delete the selected **metadata group**
  - The selected group will be deleted and the next one in the list will be displayed
5. **Metadata table** for the selected group
6. Add a new row to the **metadata table** for entering a new metadata to the selected group

# DATA HIERARCHY EDITOR

## Metadata attributes

The screenshot shows the 'Data Hierarchy Editor' window. At the top, it says 'Edit the data hierarchy for the PASTA-ELN projects'. There are buttons for 'SAVE', 'HELP', and 'CANCEL'. Below this, there are input fields for 'Data Type' (set to 'Structure level 0'), 'Projects', and 'Enter the...'. A 'Metadata Group' dropdown is set to 'default', with an input field for 'Enter the new group to be added'. There are '+ ADD' and '- DELETE' buttons. Below this is a 'Metadata Form Editor' table with columns: NAME, QUERY, LIST, UNIT, IRI, MANDATORY, DELETE, and RE-ORDER. The table contains five rows of metadata attributes. At the bottom, there are buttons for '+ ADD METADATA GROUP' and 'SHOW/HIDE ATTACHMENTS'. Eight numbered callouts (1-8) point to various elements: 1 points to the 'Data Type' field, 2 to the 'Projects' field, 3 to the 'Metadata Group' dropdown, 4 to the 'UNIT' column header, 5 to the 'IRI' column header, 6 to the 'MANDATORY' column header, 7 to the 'DELETE' column header, and 8 to the 'RE-ORDER' column header.

	NAME	QUERY	LIST	UNIT	IRI	MANDATORY	DELETE	RE-ORDER
1	-name	What is the name of the project?				<input type="radio"/>		
2	-tags	What are the tags associated with the project?				<input type="radio"/>		
3	status	What is the project status	active,paused,passive...			<input type="radio"/>		
4	objective	What is the objective?				<input type="radio"/>		
5	comment	#tags comments remarks :field:value:				<input type="radio"/>		

1. Name of the property
2. Query associated with the property
3. List associated with the property
4. Unit for the property
5. Internationalized Resource Identifier (IRI)
6. Mandatory attribute
7. Delete the property from the table
8. Re-order button to move up the property in the table

# DATA HIERARCHY EDITOR

## Data type attachments

The screenshot shows the 'Data Hierarchy Editor' window. At the top, there are 'SAVE', 'HELP', and 'CANCEL' buttons. Below, the 'Data Type' is set to 'instrument' and the 'Metadata Group' is 'default'. The 'Metadata Form Editor' table is visible, listing metadata fields like '-name', '-tags', 'comment', and 'vendor'. Below this is the 'Attachments table' with columns for 'DESCRIPTION', 'TYPE', 'DELETE', and 'RE-ORDER'. The table contains two rows: 'device1' and 'device2', both of type 'instrument'. A red box highlights the Attachments table and the '+ ADD ATTACHMENT' button below it. Numbered callouts (1-6) point to specific UI elements: 1. '+ ADD METADATA GROUP' button, 2. 'SHOW/HIDE ATTACHMENTS' button, 3. Metadata Form Editor table, 4. 'DELETE' button in the Attachments table, 5. 'RE-ORDER' button in the Attachments table, 6. '+ ADD ATTACHMENT' button.

	NAME	QUERY	LIST	UNIT	IRI	MANDATORY	DELETE	RE-ORDER
1	-name	What is the name / path of the instrument?				<input type="radio"/>		
2	-tags	What are the tags associated with the ...				<input type="radio"/>		
3	comment	#tags comments :field:value: e.g. #SOP_v1				<input type="radio"/>		
4	vendor	Who is the vendor?				<input type="radio"/>		

	DESCRIPTION	TYPE	DELETE	RE-ORDER
1	device1	instrument		
2	device2	instrument		

1. **Attachments table** which lists all the attachments associated with the selected data type
2. **Description** (eg. *device name*) attribute of the attachment
3. **Type** of the attachment, can be any previously defined data types
4. Delete the attachment from the **attachments table**
5. Re-order button to pull up the item to the top of the **attachments table**
6. Add a new attachment row to the **attachments table**

# DATA HIERARCHY EDITOR

## Save, help and cancel operations

The screenshot shows the 'Data Hierarchy Editor' interface. At the top, there are three buttons: 'SAVE', 'HELP', and 'CANCEL', which are circled and numbered 1, 2, and 3 respectively. Below these buttons are input fields for 'Data Type' (Structure level 0), 'Projects', and 'Enter the IRI for the type', along with '+ ADD' and 'DELETE' buttons. There is also a 'Metadata Group' field set to 'default' and 'Enter the new group to be added' with another '+ ADD' button. A 'Metadata Form Editor' table is visible with columns 'NAME' and 'QUERY'. An error dialog box is open in the center, displaying a red exclamation mark icon and the following text:

**Missing required metadata:**

- Type: *measurement* Metadata Group: *default* Metadata Name: *-name*

**Duplicate metadata found:**

- Type: *Structure level 2* Metadata Group: *group1* Metadata Name: *comment*
- Type: *Structure level 2* Metadata Group: *default* Metadata Name: *comment*

**Missing metadata names:**

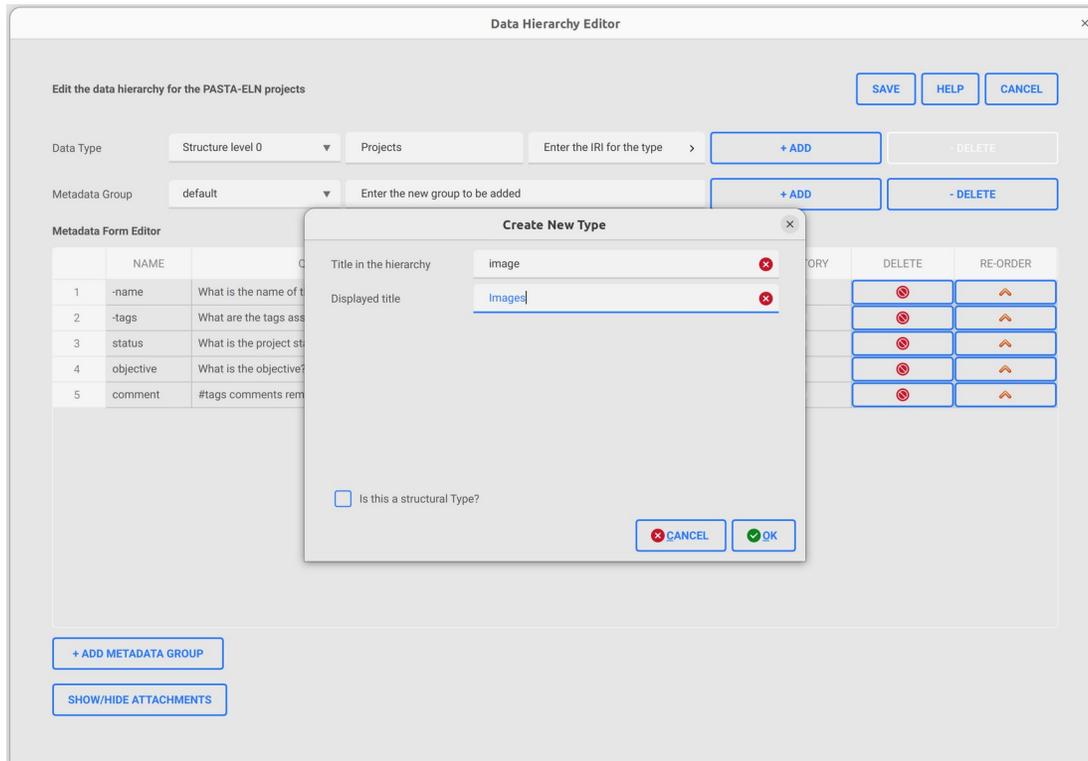
- Type: *Structure level 0* Metadata Group: *default*

The dialog box has an 'OK' button at the bottom right.

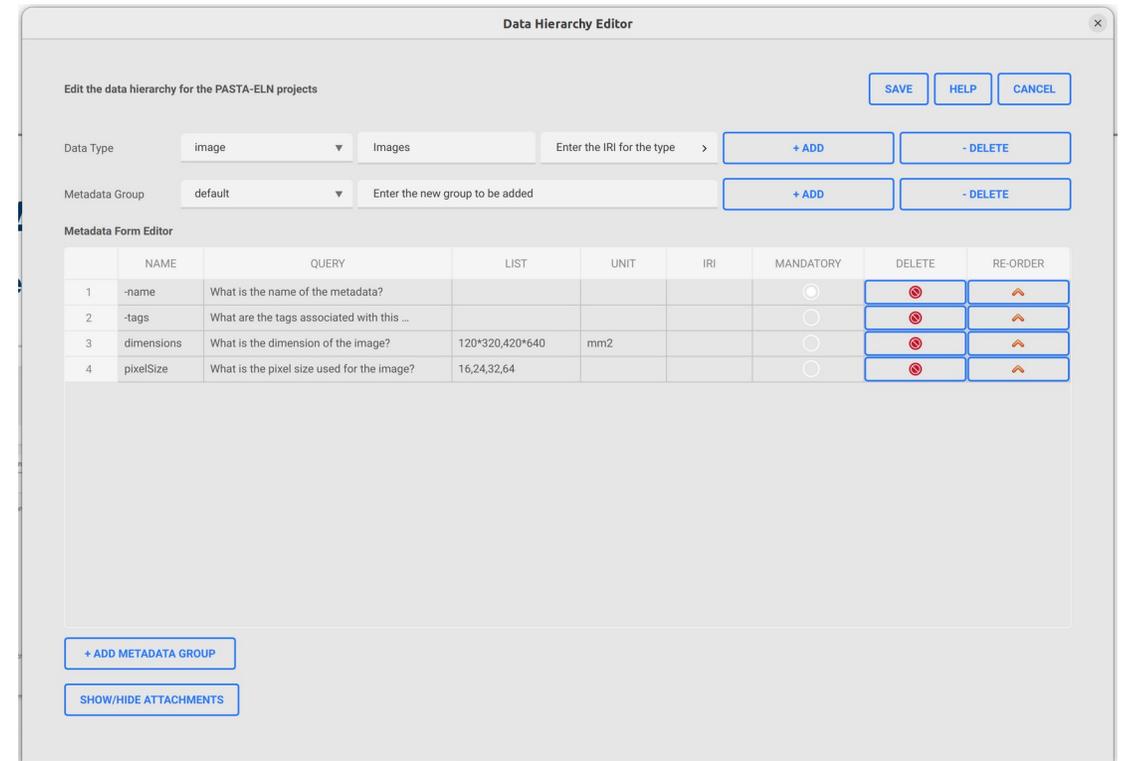
1. Save the changes made on the data loaded from database
  - Save operation will check the following within each type:
    - if all the required properties (**-name & -tags**) are defined by the user for default category
      - If all set, then success message will be shown for the save operation
      - Otherwise an error will be displayed with the missing required properties for the respective type categories as shown in the picture
    - If all metadata have a unique **name** across all groups and within the group
    - If all metadata has a non-null valid **name**
2. Navigate to the help page of the data hierarchy editor
3. Cancel all the changes done so far on the loaded data and exit the editor

# DATA HIERARCHY EDITOR

Using modified or newly added type in pasta app



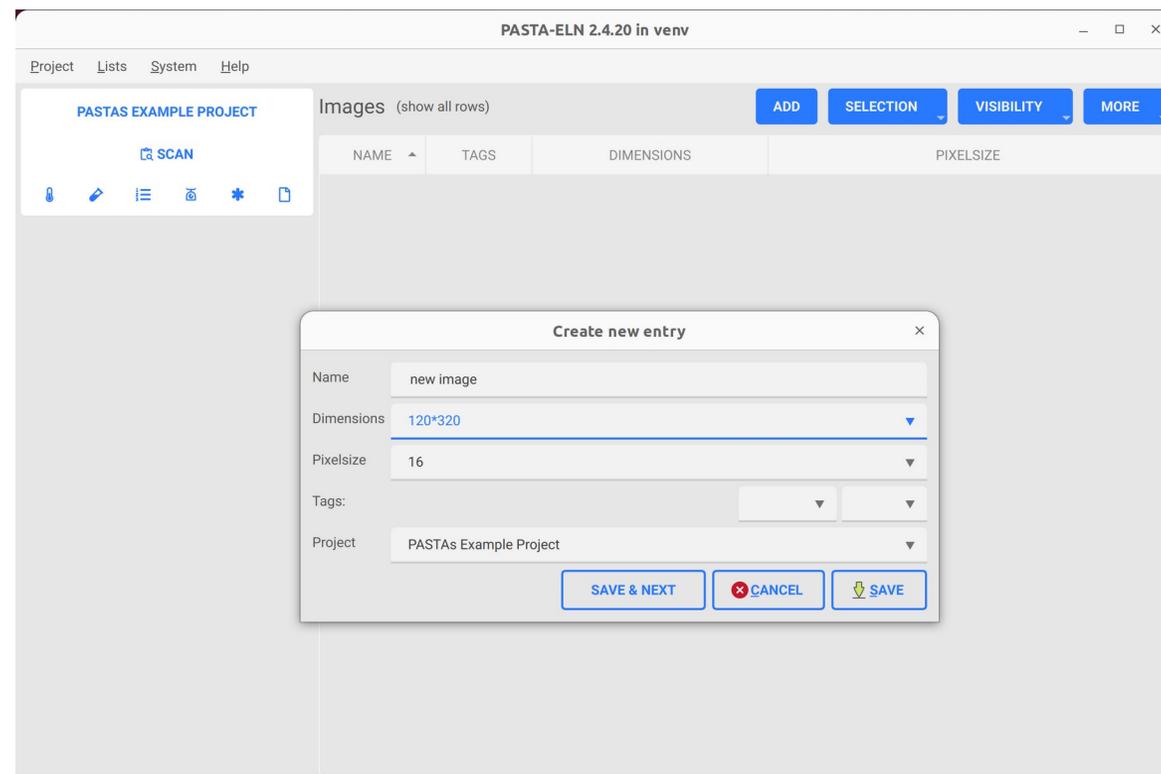
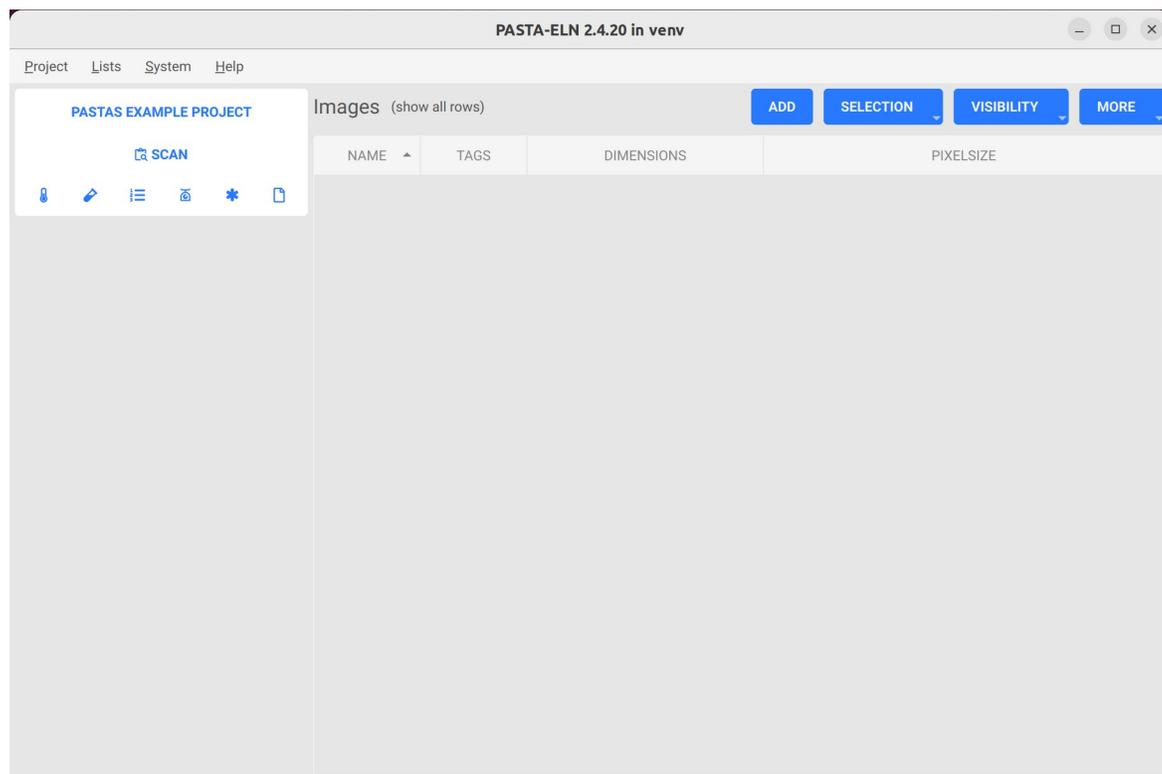
1. Add a new type titled “image”



1. Add metadata (dimension & pixel size) for the newly added type

# DATA HIERARCHY EDITOR

Using modified or newly added type in pasta app



3. In Pasta app, Go to Lists | Images and click on “Add” button to add a new image type

4. Set the metadata for the new type and save the newly configured type in database

# THANKS

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