



# Dictionary Module

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# Agenda

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Introduction to Data Dictionary module

Capabilities of Data Dictionary module

Demonstration of Data Dictionary module

Data Dictionary module exercises



# Introduction

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## Dictionary Module Functions and Permissions



Data Dictionary

- Create, manage, and search data elements (CDE/UDE), form structures, and eForms.
- Validate research data against the defined validation rules.
- Download data elements results to XML, CSV, and ZIP output formats.



# Dictionary module capabilities

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- Search Data Elements
- Create Data Elements
- Import Data Elements
- Import Data Element Schema
- Search Form Structures
- Create Form Structures
- Import Form Structure

**NTRR Note on eForms:** eForms will be covered in the ProFoRMS training.



# <Dictionary Module Demonstration>

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# Data elements

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- A data element is information that describes a piece of data to be collected in a study.
- Data elements do NOT include the data themselves.
- Attributes often include:
  - Name
  - Definition
  - Instructions
  - References (e.g., to journal articles, validation)
  - Value set (i.e., possible responses)
- Data elements have four different workflow states:
  - Draft
  - Awaiting publication
  - Published
  - Deprecated
  - Retired



# Search data elements

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1. On the Data Dictionary landing page, click the menu on the left side tool bar to open the menu.
2. Click “Search” under the “Data Elements” heading.
3. Using the search text-box, enter the search keyword to search. Keyword search will be performed within the form fields using the Search Locations (Keywords, Definition, Permissible Values, External IDs, Variable Name, Created Date).
4. You may also narrow your search by selecting the check-box beside the criteria you wish to search (Ownership, Status, Modified Date, Element Type, Form Types, Standardization, , Diseases, Population).
5. Click the “Search” icon (magnifying glass) to run the search.
6. Click on the title of a search result to open the Data Element.



# Create data elements

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1. On the Data Dictionary landing page, click the menu on the left side tool bar to open the menu.
2. Click “Create” under the “Data Elements” heading.
3. Fill out all required fields and use the top chevrons to navigate through creating a data element or click the “continue” button at the bottom of each screen: (1. Basic Information, 2. Documentation, 3. Attributes, 4. Keywords and Labels, 5. Details, 6. Review).
4. On the “6. Review” chevron, click the “Save and Finish” button when you are done.





# Publish data elements

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*Two methods for publishing a data element:*

1. Request publication from the data element screen itself.
2. Data element will be published automatically when requesting the publication of a form structure with the draft data element attached.



# Edit data elements

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1. Click on the title of a data element to open.
2. Click the “Edit” link in the top right.
3. Edit details.
4. Under “Step 6. Review” click the “save and finish” button.



# Import data elements

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1. Use the data element import guidelines and template to bulk import data elements:
  - One data element per row
  - Remove any additional columns you added while working in the template, including:
    - The column where you calculate the number of characters for the variable Name attribute and,
    - The column for the Permissible Value Counter macro.
  - Convert XLS template to a CSV file (CSV files are the only file types accepted)
2. On the Data Dictionary landing page, click the menu on the left side tool bar to open the menu.
3. Click “Import” under the “Data Elements” heading.
4. Locate your file and click “Upload”.



# Form structures

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- A form structure is a grouping/collection of data elements used to gather information for a study.
- Form structures are analogous to case report forms.
- Form structures are created in the draft state where data elements can be added or removed and the form can be modified.
- Research data can be validated using a draft form structure in the Validation Tool, but it cannot be uploaded to the database until it is validated.
- Once the research data is validated using the Validation Tool, and is ready to upload data to the database, you may request publication of the form structure.
- Published form structures can be used to upload research data via the upload tool.



# Form structures cont.

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Form structure workflow states:

Type	Description	Visibility	Editable?	Data Validation Use?	Data Submission Use?
<b>Draft</b>	In a process of development	Required to log in into portal. Available for the owner and Administrator only	Yes	Yes	No
<b>Awaiting publication</b>	A publication has been requested for this FS	Required to log in into portal	By administrator only	Yes	No
<b>Published</b>	The FS which is available for public use	All uses including the public site	By administrator only	Yes	Yes
<b>Shared Draft</b>	Form structures were created by the NINDS CDE Project. Provide recommendations for investigators of which CDEs to use.	All uses including the public site	By administrator only	Yes	No



# Search form structures

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1. After clicking on the “Data Dictionary” you will land on the “Search Form Structures” page.
2. Using the search text-box, enter the search keyword to search. Keyword search will be performed within the form fields using the Search Locations (Keywords, Definition, Permissible Values, External IDs, Variable Name, Created Date).
3. You may also narrow your search by selecting the check-box beside the criteria you wish to search (Ownership, Status, Modified Date, Element Type, Form Types, Standardization, , Diseases, Population).
4. Click the “Search” icon (magnifying glass) to run the search.
5. Click on the title of a search result to open the Data Element.



# Create form structures

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1. On the Data Dictionary landing page, click the menu on the left side tool bar to open the menu.
2. Click “Create” under the “Form Structures” heading.
3. Fill out all required fields and use the top chevrons to navigate through creating a data element or click the “continue” button at the bottom of each screen: (1. Basic Information, 2. Documentation, 3. Data Elements, 4. Permissions, 5. Review).

Note: Under “2. Documentation” it is strongly encouraged that you upload a copy of your case report form!

4. Under “5. Review” review all the data elements and the order they are in. Click “finish” to save the form structure as a draft.
5. Open the form structure and click “Request Publication” if you are ready for it to be published.
6. An Admin/Data Dictionary Admin can publish the form structure by clicking on the menu under “Data Dictionary Administration” > “Manage” under Form Structures > Select “Status” as “Awaiting Publication” > Click on Form Structure > Click “Approve Publication”.



# Notes on data elements in form structures

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- You can search for existing data elements or create a new data element for the form structure.
- You can create a group that repeats data elements by clicking the “Add Group” button.
  - If you are unsure of the number of times you want a question to be repeated, select “up to”.
  - The “threshold” is the number of times the group is repeated.
- Data elements are added to the group you create in the order in which they were selected. The order can be adjusted once added.
- GUID should always be a required data element.





# Notes on permissions in form structures

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- There are three types of permissions available to give to someone you want to have access to a form structure:
  - Read (this is the default) – user can view draft form structure.
  - Write – user can view draft and edit form structure details.
  - Admin/Owner (only one owner allowed, by default this is the creator) – user can view draft and edit form structure details, as well as grant permissions.
- Permissions can be removed.



# Notes on published form structures

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- Published form structures can be used as is or you can create a draft copy to adjust to your needs.



# Import form structure

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Form structures that exist already as XML files can be imported into the system if you have a Data Dictionary Admin role.

1. First, import the data elements from the form structure.

*If the form structure exists in another environment already, you can do this by downloading the “Data Element Report” and importing the data elements into the system.*

2. Next, import the form structure as an XML file by clicking on the menu under “Data Dictionary Administration” > “Import” under Form Structures.
3. Follow instructions for publishing a form structure.



# <Dictionary Module Exercises>

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# Dictionary Module Exercises

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1. Search Data Elements
2. Create Data Element
3. Import Data Elements
4. Search Form Structures
5. Create/Publish Form Structure

