## Revision History

<table>
<thead>
<tr>
<th>Description</th>
<th>Date</th>
<th>Version</th>
</tr>
</thead>
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<tr>
<td>Initial Version</td>
<td>11/11/14</td>
<td>1.0</td>
</tr>
<tr>
<td>First Revision, primarily based upon changes to the user interface</td>
<td>5/20/2016</td>
<td>1.1</td>
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1 Introduction
The SDSFIE Online Data Dictionary specifies an Installation and Environment (I&E) Community-wide data element dictionary for geospatial. The dictionary includes entity concepts, attribute concepts with their enumeration types, and accompanying information about these types (enumerants). SDSFIE Data Dictionary contains models of SDSFIE from all Components and versions since 2.61.

2 Getting Started
In order to access the Data Dictionary tool, you will need to navigate to the SDSFIE Online website home page.

Figure 1 Home login page
2.1 Login

If you have previously registered for access to the SDSFIE Online website, you should login by:

Entering your Username
Entering your Password
Then, select Login to advance to the next screen.

Site Registration
If you have not previously registered for access to the SDSFIE Online website, you’ll need to select ‘Register’ to access the registration page.

Forgotten Password
To retrieve a forgotten password, you should select ‘Reset My Password’.

Forgotten Username
To recover a forgotten username, you should select ‘Recover My Username’.

![Figure 2: Log In Page](image-url)
2.2 Launching the Application

Once the login process has been completed, you will navigate to the ‘Models & Workflows’ dropdown menu and select ‘Data Dictionary’ to launch the tool.

2.3 Application Layout

After launching the Data Dictionary tool, you will be advanced directly to the Introduction page of the SDSFIE Data Dictionary. The ‘Intro’ tab is selected while the ‘Search’ and ‘Results’ tabs are profiled but still accessible.

2.3.1 Introduction Page

The Introduction Page allows you to conduct a new SDSFIE Online Data Dictionary search by selecting ‘New Search’. You can also execute a saved search using criteria from a previous search session by selecting the name of the saved search from the dropdown menu and selecting ‘Saved Search’.

![Introduction Page](image)

When you start a ‘New Search’, you will be advanced to the Search Page with the ‘Search’ tab selected. When you execute a ‘Saved Search’, you will be advanced to the Results page with the ‘Results’ tab selected.
### 2.3.2 Search Page

The Search Page allows you to narrow or “filter” your search by entering one or more Search Terms, and choosing one or more selections from each Search Form field, then selecting ‘Search’. You may also reset all fields of the search form by selecting ‘Reset Search Form’.

In Figure 4, the example Search Term “tank” is specified as a search criteria, along with the As-of Date. Since the additional dropdowns have been left in the default “ANY” setting, and no further constraint (filters) have been specified, the results will include all instances in which the word “tank” is found in the text strings of the various Item Properties (e.g., Model Name and Definition).

For more information on using phrases, and including operators with more than one Search Terms to form complex queries, see the Appendix.

When you execute a Search, you will be advanced to the Results page with the ‘Results’ tab selected.
2.3.3 Results Page
The Results Page allows you to view the results of your search.

2.3.3.1 Entities Tab
The Entities tab lists all of the Entities that match your selected search criteria.

![Entity results page](image1)

2.3.3.1.1 Entity Details Page
This Entity Detail Page is displayed after you click on the Entity for which you wish to display detailed information.

![Entity details page](image2)
2.3.3.2 Attributes Tab

The Attributes tab lists all of the Attributes that match your selected search criteria.

Figure 7: Attributes results page

2.3.3.2.1 Attributes Details Page

The Attributes Details Page is displayed after you click on the Attribute for which you wish to display detailed information.

Figure 8: Attribute details page
2.3.3.3 Enumerations Tab
The Enumerations tab lists all of the Enumerations that match your selected search criteria.

![Enumerations tab result](image)

2.3.3.3.1 Enumerations Details Page
The Enumerations Details Page is displayed after you click on the Enumeration for which you wish to display detailed information.

![Enumerations details](image)
2.3.3.3.2 Constrained Attributes

Every enumeration in the model constrains one or more attributes. To see which attributes are constrained by a particular enumeration, click the link under the Show heading to display those attributes.

Figure 11: Constrained attributes
2.3.3.4 Enumerants Tab
The Enumerants tab lists all of the possible Enumerants based on your selected search criteria.

![Enumerant results](image1)

**Figure 12: Enumerant results**

2.3.3.4.1 Enumerant Details Page
The Enumerant Details Page is displayed after you click on the Enumerant that you wish to display detailed information for in the Model Name column.

![Enumerant details page](image2)

**Figure 13: Enumerant details page**
2.3.3.5 Associations Tab

The Associations tab lists all of the Associations that match your selected search criteria.

Figure 14: Associations page

2.3.3.5.1 Association Details Page

The Association Details Page is displayed after you click on the Association that you wish to display detailed information, under the Model Name column.

Figure 15: Association details page
3 Additional Functions

The Data Dictionary Tool provides additional functionality not illustrated above. These additional functions are described (and depicted in the images) below, to inform you of all capabilities provided by the Data Dictionary Tool.

3.1 Execute a Saved Search

In addition to conducting a new search, the Introduction page allows you to access a saved search. By selecting a saved search from the pull down menu on the Introduction page and executing a ‘Saved Search’, you can view the results of that search on the Results page.

Figure 16: Execute a Saved Search
3.2 Save Search Results

In order to save the results of a search, you will need to select ‘Save Search’ while on the Results page. The ‘Add Saved Search’ dialog box is then displayed allowing you to enter the name and description of the search you wish to save. You may also override the results of a previously saved search by selecting the search name from the ‘Saved Searches’ pull down menu from the ‘Add Saved Search’ dialog box. Once the information is entered, you can select ‘Save’ to save the search or ‘Cancel’ to close the ‘Add Saved Search’ dialog box.

The system then displays a dialog box confirming that the search has been successfully saved (see Error! Reference source not found.). By clicking ‘OK’ or ‘x’, you will close the dialog box.

Figure 17: Add saved search
The Results page allows you, after having conducted a search, to edit the criteria of the search. Once you select ‘Edit Search’, the Search page displays with populated Search Criteria from the previously conducted search.
3.4 Export Search Results

The Results page also allows you to export the results of a search to an Excel spreadsheet in a report form layout. You can customize the report by selecting either a simple or a full level of information, and indicating whether profiled elements should be removed, have a strikethrough format, or be displayed.

The report is generated by selecting the checkboxes of the results to be exported then selecting ‘Export Results’.

*Expect significant processing times when exporting large amounts of data (i.e. 100 or more Entities).*

![Figure 20: Export Search Results](image)
4 Appendix: Search Terms, Phrases, and Operators

To match text strings in the specified Item Type(s) and Property(s) (see Figure 4), enter one or more search terms separated by spaces. This will return results that contain BOTH terms; thus an ‘AND’ operator is implicitly used (automatically inserted but transparent to the user).

An ‘OR’ operator may be entered to return results with EITHER or BOTH terms.

Place double quotes around a phrase (two or more consecutive terms separated by space) to return matches of that exact phrase, e.g., “environmental restoration”.

Allowed characters are letters, numbers, spaces, and double quotes. All other characters (e.g., [ ] \ ^ $ . | ? * ( ) { } % , ; > < ! @ # & ' - +) are removed from the query submitted to the API.

In the Browse/Generate tool, the following 5 Properties (fields) of each entity is searched for matches: Model Name, Alias Name, Definition, Description, and Note.

Here are some examples of the queries that are issued, given different entries into the “Search:” box:

<table>
<thead>
<tr>
<th>Search Terms, and Optional Operators Entered in the “Search:” Box</th>
<th>Query Issued to API</th>
<th>Relative Number of Results</th>
<th>Description of Matched Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>above OR ground</td>
<td>“above” OR “ground”</td>
<td>Most</td>
<td>One occurrence of EITHER or BOTH of the words “above” and “ground” exist somewhere in the 5 Properties (fields) of the matched entities.</td>
</tr>
<tr>
<td>above ground</td>
<td>“above” AND “ground”</td>
<td>Some</td>
<td>One occurrence of BOTH of the words “above” and “ground” exist somewhere in the 5 Properties of the matched entities.</td>
</tr>
<tr>
<td>“above ground”</td>
<td>“above ground”</td>
<td>Few</td>
<td>The exact text string “above ground” exists somewhere in the 5 Properties of the matched entities.</td>
</tr>
</tbody>
</table>