



## Some tool examples and how to improve your landing pages for datasets

Swedish National Data Service SND





## <http://www.ddialliance.org/resources/tools>



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## DDI Tools

There are many tools available to help you work with DDI, from authoring and editing to data transformations and conversions. They've been developed independently by a variety of organizations within the global DDI community: Commercial, governmental, and academic.

### Find a Tool

You can browse the full list of tools below or filter the list according to your needs using the fields below. There are three main categories of tools: Software, software components, and stylesheets.

Comments or suggestions?

#### How to Submit a Tool

If you have a tool that you would like to share on the DDI Alliance website, please read more about our submission process.

Tool Purpose

DDI version(s) supported

Availability

Supported Operating Systems

Search Tools by Name

Filter

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## DDI .net API

- Class library for DDI-L (3.1 & 3.2)
- Automatic generation of identifiers
- License: L-GPL

<https://github.com/snd-sweden/DDI-API>



```
DDIClassLibraryWrapper wrapper = new DDIClassLibraryWrapper();  
wrapper.AgencyID = "se.snd";  
wrapper.CreateURNs = false;  
wrapper.SetDefaultValues = false;
```

```
DDIInstanceType instance = wrapper.DDIInstance;
```

```
StudyUnitType s = new StudyUnitType();  
instance.StudyUnit.Add(s);
```

```
//Citation
```

```
{  
    s.Citation = new CitationType();  
    s.Citation.Title = new InternationalStringType();  
    s.Citation.Title.String.Add(new StringType() { lang = "en", Content = "Test title" });  
    s.Citation.Title.String.Add(new StringType() { lang = "sv", Content = "Title" });
```

```
    CreatorType creator = new CreatorType();  
    creator.CreatorName = new BibliographicNameType();  
    creator.CreatorName.String.Add(new StringType("Johan Fihn"));  
    s.Citation.Creator.Add(creator);
```

```
}
```

Example of creation of a study.

Full example at:

<https://github.com/snd-sweden/DDI-API>



# Metadata transformation (XSLT)

- Transformations for DDI-L to other metadata formats
- Ability to run in several environment
- Easy to extend, test and pull requests welcome

<https://github.com/MetadataTransform/ddi-xslt>



## DDI 3.2

```
<ddi:DDIInstance xmlns:a="ddi:archive:3_2" xmlns:pr="ddi:ddiprofile:3_2" xmlns:c="ddi:ddiinstance:3_2"
  <r:Agency>se.snd</r:Agency>
  <r:ID>instance_a81f9098-7fc9-4e48-9bb3-bf2030e90839</r:ID>
  <r:Version>1.0</r:Version>
  <s:StudyUnit isPublished="false">
    <r:Agency>se.snd</r:Agency>
    <r:ID>a81f9098-7fc9-4e48-9bb3-bf2030e90839</r:ID>
    <r:Version>1.0</r:Version>
    <r:UserID typeOfUserID="study_id">2539</r:UserID>
    <r:Citation>
      <r:Title>
        <r:String xml:lang="sv">Maximal benmassa hos unga kvinnor</r:String>
        <r:String xml:lang="en">The PEAK-25 cohort</r:String>
      </r:Title>
      <r:Creator>
        <r:CreatorReference>
          <r:Agency>se.snd</r:Agency>
          <r:ID>2bebeff9-9622-4d3f-b4ba-3106c1c51540</r:ID>
          <r:Version>1.0</r:Version>
          <r:TypeOfObject>Individual</r:TypeOfObject>
```



## DDI 1.2.2

```
<?xml version="1.0" encoding="UTF-8"?>
<codeBook xmlns="http://www.icpsr.umich.edu/DDI" xmlns:dc="http://purl.org
  <docDscr>
    <citation>
      <titlStmt>
        <titl>XML data documentation for "Maximal benmassa hos unga kv
      </titlStmt>
      <prodStmt>
        <prodDate date="2017-03-21+01:00">2017-03-21+01:00</prodDate>
        <software version="development">github.com/MetadataTransform/d
          ddi3_2_to_ddi1_2_2.xsl</software>
        </prodStmt>
        <verStmt>
          <version/>
        </verStmt>
        <biblCit>Maximal benmassa hos unga kvinnor The PEAK-25 cohort, ,
      </biblCit>
    </citation>
  </docDscr>
  <stdyDscr>
    <citation>
```



# MARC-XML

```
<?xml version="1.0" encoding="iso-8859-1"?>
  <!--
    Automatically generated file from a DDI-L version 3.2 XML input file
    xslt stylesheet for transformation by the Swedish National Data Service
  -->
  <collection xmlns="http://www.loc.gov/MARC21/slim" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <record>
      <leader>00000cmm a2200000 4500</leader>
      <controlfield tag="001">EXT 0267</controlfield>
      <controlfield tag="007">c| | | | | | | | | |</controlfield>
      <controlfield tag="008">170321e2017 | | | | | | | | | |</controlfield>
      <datafield ind2=" " tag="045" ind1="1">
        <subfield code="b">d1999</subfield>
      </datafield>
      <datafield ind1="0" ind2="0" tag="245">
        <subfield code="a">Maximal benmassa hos unga kvinnor The PEAK-25 cohort</subfield>
      </datafield>
      <datafield tag="506" ind1=" " ind2=" ">
        <subfield code="a">3b - Data finns ej tillgängliga via SND. Vänd dig till SND för mer information</subfield>
      </datafield>
      <datafield ind1=" " ind2=" " tag="522">
```





## How to make your markup machine readable

- Server side generation of html
- Add meta-tags
- Use alternative formats
- Inline markup of metadata





# Why server side generation?

- Some crawlers don't run javascript
- Simpler test of content via scripts and online tools
- Easier to control the output





# Add meta tags

```
<html>
  <head>
    <meta charset="UTF-8">
    <link rel="meta" type="application/json" title="JSON"
      href="http://ariadne-portal.dcu.gr/data/18365085.json">
    <link rel="meta" type="application/xml" title="ACDM XML"
      href="http://ariadne-portal.dcu.gr/data/18365085.xml">
    <meta name="description"
      content="Base marmorea dedicata al liberto ...">
    <meta name="keywords" content="Base di P. Aelius Liberalis">
    <title>Base di P. Aelius Liberalis - Ariadne portal</title>
  </head>
  ...
</html>
```





# Use alternative formats

```
<html>
  <head>
    <meta charset="UTF-8">
    <link rel="meta" type="application/json" title="JSON"
      href="http://ariadne-portal.dcu.gr/data/18365085.json">
    <link rel="meta" type="application/xml" title="ACDM XML"
      href="http://ariadne-portal.dcu.gr/data/18365085.xml">
    <meta name="description"
      content="Base marmorea dedicata al liberto ...">
    <meta name="keywords" content="Base di P. Aelius Liberalis">
    <title>Base di P. Aelius Liberalis - Ariadne portal</title>
  </head>
  ...
</html>
```





# Schema.org

- Founded by Google, Microsoft, Yahoo and Yandex
- Easy to use vocabularies supported by all major search engines
- Can be encoded in RDFa, Microdata and JSON-LD
- Have item type for Dataset!





## Dataset

Canonical URL: <http://schema.org/Dataset>

**Thing > CreativeWork > Dataset**

A body of structured information describing some topic(s) of interest.

Usage: Between 100 and 1000 domains

[\[more...\]](#)

Property	Expected Type	Description
<b>Properties from <a href="#">Dataset</a></b>		
<a href="#">distribution</a>	<a href="#">DataDownload</a>	A downloadable form of this dataset, at a specific location, in a specific format.
<a href="#">includedInDataCatalog</a>	<a href="#">DataCatalog</a>	A data catalog which contains this dataset. Supersedes <a href="#">catalog</a> , <a href="#">includedDataCatalog</a> . Inverse property: <a href="#">dataset</a> .
<b>Properties from <a href="#">CreativeWork</a></b>		
<a href="#">about</a>	<a href="#">Thing</a>	The subject matter of the content.
<a href="#">accessMode</a>	<a href="#">Text</a>	The human sensory perceptual system or cognitive faculty through which a person may process or perceive information. Expected values include: auditory, tactile, textual, visual, colorDependent, chartOnVisual, chemOnVisual, diagramOnVisual, mathOnVisual, musicOnVisual, textOnVisual.
<a href="#">accessModeSufficient</a>	<a href="#">Text</a>	A list of single or combined accessModes that are sufficient to understand all the intellectual content of a resource. Expected values include: auditory, tactile, textual, visual.
<a href="#">accessibilityAPI</a>	<a href="#">Text</a>	Indicates that the resource is compatible with the referenced accessibility API ( <a href="#">WebSchemas wiki lists possible values</a> ).
<a href="#">accessibilityControl</a>	<a href="#">Text</a>	Identifies input methods that are sufficient to fully control the described resource ( <a href="#">WebSchemas wiki lists possible values</a> ).



# Simple dataset landing page

```
<div>
  <h1>Squirells in Kansas</h1>
  <p>Squirrels found and catalogued at the University of Kansas</p>

  <div>
    <a href="http://s.gov/squirell.csv">squirell.csv</a>
    <span>Squirells first round panel</span>
    <span>2017-05-24</span>
  </div>
</div>
```

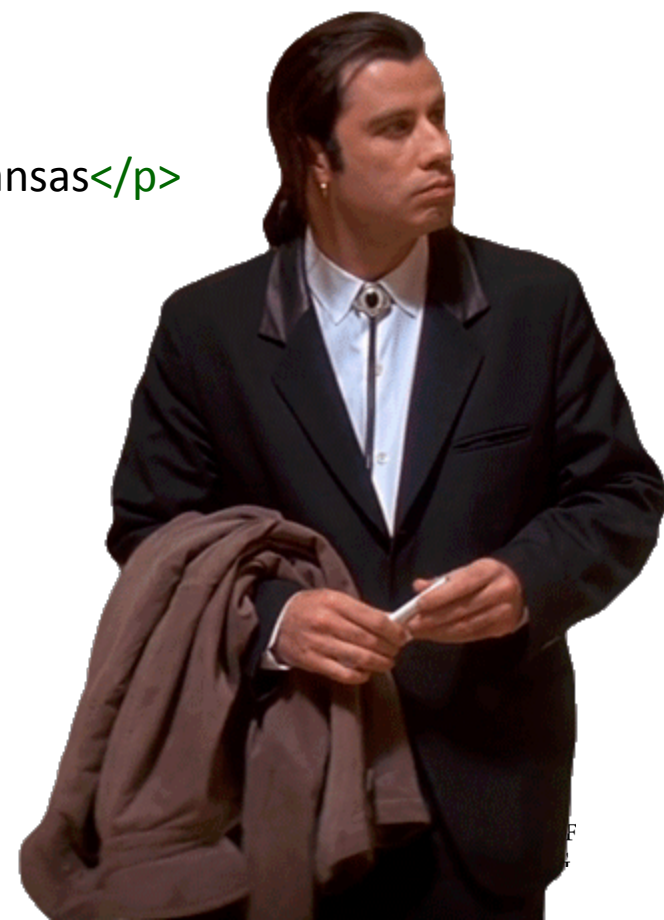




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    <span>Squirells first round panel</span>
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  </div>
</div>
```







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    <span>Squirells first round panel</span>
    <span>2017-05-24</span>
  </div>
</div>
```





# Specify the scope and type

```
<div itemscope itemtype="http://schema.org/Dataset">  
  <h1>Squirells in Kansas</h1>  
  <p>Squirrels found and catalogued at the University of Kansas</p>  
  
  <div>  
    <a href="http://s.gov/squirell.csv">squirell.csv</a>  
    <span>Squirells first round panel</span>  
    <span>2017-05-24</span>  
  </div>  
</div>
```





# Adding properties

```
<div itemscope itemtype="http://schema.org/Dataset">  
  <h1 itemprop="name">Squirells in Kansas</h1>  
  <p itemprop="description">Squirrels found and catalogued at the University of Kansas</p>  
  
  <div>  
    <a href="http://s.gov/squirell.csv">squirell.csv</a>  
    <span>Squirells first round panel</span>  
    <span>2017-05-24</span>  
  </div>  
</div>
```





# Adding sub-property and type

```
<div itemscope itemtype="http://schema.org/Dataset">  
  <h1 itemprop="name">Squirells in Kansas</h1>  
  <p itemprop="description">Squirrels found and catalogued at the University of Kansas</p>  
  
  <div itemprop="distribution" itemscope itemtype="http://schema.org/DataDownload">  
    <a href="http://s.gov/squirell.csv">squirell.csv</a>  
    <span>Squirells first round panel</span>  
    <span>2017-05-24</span>  
  </div>  
</div>
```





# Adding properties on sub-property

```
<div itemscope itemtype="http://schema.org/Dataset">  
  <h1 itemprop="name">Squirells in Kansas</h1>  
  <p itemprop="description">Squirrels found and catalogued at the University of Kansas</p>  
  
  <div itemprop="distribution" itemscope itemtype="http://schema.org/DataDownload">  
    <a itemprop="contentUrl" href="http://s.gov/squirell.csv">squirell.csv</a>  
    <span itemprop="description">Squirells first round panel</span>  
    <span itemprop="uploadDate">2017-05-24</span>  
  </div>  
</div>
```





# Alternative to inline markup

```
<script type="application/ld+json">
{
  "@context": "http://schema.org",
  "@type": "Dataset",
  "name": "Squirells in Kansas",
  "description": "Squirrels found and catalogued at the University of Kansas",
  "distribution": {
    "@type": "DataDownload",
    "contentUrl": " http://s.gov/squirell.csv",
    "description": " Squirells first round panel",
    "uploadDate": "2017-05-24"
  }
}
</script>
```





# Parsed information for crawlers

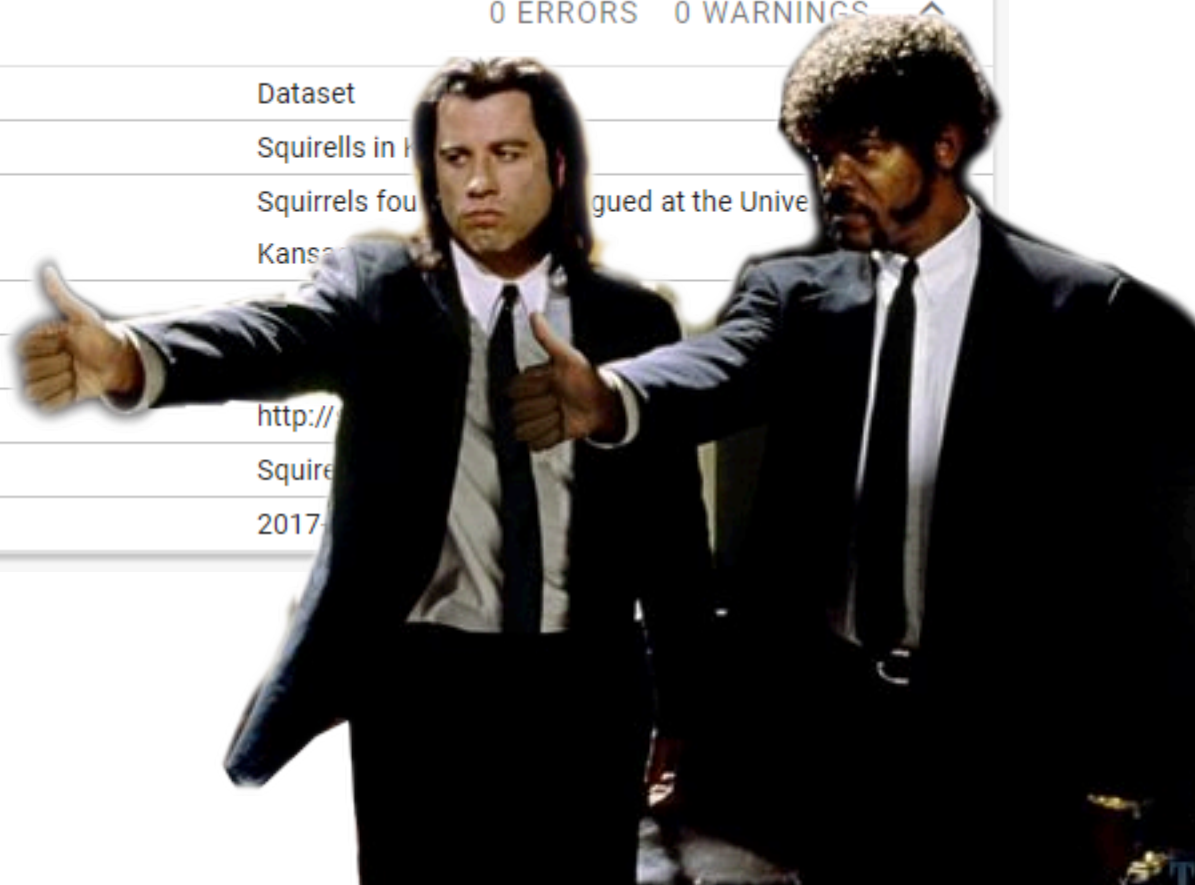
Dataset	0 ERRORS 0 WARNINGS ^
@type	Dataset
name	Squirells in Kansas
description	Squirrels found and catalogued at the University of Kansas
distribution	
@type	DataDownload
contentUrl	http://s.gov/squirell.csv
description	Squirells first round panel
uploadDate	2017-05-24





# Parsed information for crawlers

Dataset		0 ERRORS 0 WARNINGS	
@type	Dataset		
name	Squirrels in K		
description	Squirrels fou	gued at the Unive	
distribution	Kansa		
@type			
contentUrl	http://		
description	Squire		
uploadDate	2017-		







## Links

### DDI API

<https://github.com/snd-sweden/DDI-API>

### DDI-XSLT

<https://github.com/MetadataTransform/ddi-xslt>

### Schema.org links

<https://schema.org/Dataset>

<https://www.w3.org/wiki/WebSchemas/Datasets>

### Testing tool for structured markup

<https://search.google.com/structured-data/testing-tool>

