

# Metadata specification

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## Background

In Norad funded projects, it is important to establish a clear set of rules for datasets, known as a metadata specification. This is more than just a formality – it's a way to guide our partners, make data easy to find, ensure consistent quality, and create combined datasets with shared information.

Having a metadata specification acts as a guide for our partners. This helps everyone understand what's required and keeps things consistent across all the different datasets.

It also helps to make data more discoverable across Norad funded projects. By using a standard set of details about each dataset, it becomes easier for users to find and understand the information they're looking for. This supports collaboration across initiatives and organizations.

## Data format

JSON and YAML format are general supported formats. The metadata should either be specified with JSON or with YAML, and be encoded in UTF-8.

Field names undergo a conversion for standardization and compatibility. This conversion involves two steps:

**Translation to Lowercase:** All characters in the field name are converted to lowercase. This uniformity ensures consistency across different systems and platforms.

**Replacing Spaces with Underscores:** Spaces within the field names are replaced with underscores ( \_ ).

For example, a field name like “Spatial Resolution” in a standard text format would be converted to “spatial\_resolution” in JSON and YAML. This approach maintains readability while adhering to the naming conventions commonly used in programming and data formats.

## Fields

### Top Level

<b>Field</b>	<b>Required</b>	<b>Type</b>	<b>Description</b>
Identifier	Y	UUID	Universal Unique Identifier for this dataset
Title	Y	String	Title of the dataset
Abstract	Y	String	Short description of data contained in the dataset
Documentation	N	URL	Link to where documentation about the dataset can be found.
Data producer	N	String	Name of the person(s) that created this dataset
Distribution agency	Y	String	The organization or entity that published this dataset
Contact	Y	String	Contact information to responsible publisher
Release date	Y	Date	The date on which the dataset was made publicly available or released for use.
Version	Y	Number	The version of this dataset. E.g 2.0
Maintenance and update frequency	Y	String	Description of how often this dataset is being updated (Daily, Weekly, Monthly, Annually, As needed, Irregular, Never)
Temporal extent	N	Object	See Temporal Extent
Spatial extent	N	Object	See Spatial Extent
License	Y	Object	See License
Keywords	N	List of strings	Keywords/tags for the dataset that can be used in filtering
Resources	Y	List of objects	See Resources
Examples	N	List of objects	See Examples

## Temporal Extent

Field	Required	Type	Description
Start date	Y	Date	The start date (inclusive) the data covers
End data	Y	Date	The start date (inclusive) the data covers

## Spatial Extent

Field	Required	Type	Description
Type	Y	String	Either "GLOBAL" or "REGION"
Region	N	String	Required if Type is "REGION". String representing the region the data covers
Details	N	String	Additional information about the region. Can for example be a comma separated list of countries or regions within a country
Coordinates	N	List of coordinates	The following order of coordinates: min_lon, min_lat, max_lon, max_lat
Spatial resolution	N	String	Description of the resolution of data. E.g. 10m x 10m or 5° x 5°
Coordinate reference system	N	String	Definition of the geographical coordinate reference system

## License

Field	Required	Type	Description
Name	Y	String	The name of the license
URL	N	URL	URL to the license text
Description	N	String	Short description about the license

## Resources

Field	Required	Type	Description
Type	Y	String	Type of resource. Eg. API, File, DB
Description	N	String	Description of this resource
Data Specification	N	String	Specification of the standard used in the data contents
Url	N	URL	URL for direct access to this resource

## Example

Field	Required	Type	Description
Type	Y	String	Type of resource. Eg. Application, Publication, Tutorial
URL	N	URL	URL to the example
Description	N	String	Short description about the example

The specification is inspired by and adapted from <https://github.com/awslabs/open-data-registry>.