

# MDDF - description

## MDDF - description

Multi Dimensional Data Format structure contains 9 variables, where *d* and *TestParameters* are the most essential, because they contains the data which can be further processed. The other variables are used for the correct data description – coordinate system, time zone, etc.

MDDF file name following the scheme: *MDDF\_EPIZODNAME\_file\_description*.

Variable name	Type	Description
<b>CRS</b>	character	Coordinate Reference System EPSG code (or local) mapping surveying ( <a href="http://epsg.io">http://epsg.io</a> ), standard WGS84 (EPSG: 4326)
<b>d</b>	structure	The variable containing the data. The data may be as a single variable, a vector or an array. <i>d</i> structure contains the following fields: <ul style="list-style-type: none"> <li>• <b>Station_codename</b> – Code name of the station</li> <li>• <b>Measurements</b> – Number of measurements or sample collection in the field. Structure containing the following fields: <ul style="list-style-type: none"> <li>◦ <b>Date</b> – Time of measured parameter/sample collection</li> <li>◦ <b>Tests</b> – Number of test performed/ measured parameters. Structure containing the following fields: <ul style="list-style-type: none"> <li>▪ <b>Test_name_id</b> – Id of measured parameter/test</li> <li>▪ <b>Result</b> – Result of measured parameter/test</li> <li>▪ <b>Result_duplicate (optional)</b> – Quality assurance check</li> </ul> </li> <li>◦ <b>Stage (optional)</b> – Stage of monitoring</li> <li>◦ <b>Measurement_method (optional)</b> – Method of measurement</li> </ul> </li> </ul>
<b>dDescription</b>	cell	Description of the fields of 'd' variable. A cell contains two columns: the first contains the name of the field/column of data, the second contains a description of them. All data must be specified.
<b>Description</b>	character	The text description of the data contained in the file
<b>FormatName</b>	character	Name of data format MDDF (Multi Dimensional Data Format).
<b>FormatVersion</b>	real	When changing/expansion of the format change its version. It can have one number after the decimal point.

# EPOS Thematic Core Service Anthropogenic Hazards

<b>TestParameters</b>	structure	<p>The variable containing the parameters of data. The data may be as a single variable, a vector or an array. <b>TestParameters</b> structure contains the following fields:</p> <ul style="list-style-type: none"><li>• <b>Test_name</b> – Name of test/measured parameter</li><li>• <b>Unit</b> – Unit of test/measured parameter</li><li>• <b>Type</b> – Data type number:</li></ul> <p>An array contains two columns: the first contains the name of the field/column of data, the second contains the data type number. All data must be specified. The Numbers of Data type:</p> <p>1 – the real data without limits,</p> <p>2 – the integer data,</p> <p>3 – text value,</p> <p>4 – the real number rounded to 0.1 (shown as 11),</p> <p>5 – time in Matlab format serial time – the time display format; seconds with accuracy 1/10,</p> <p>6 – the real data display in an engineering manner with one decimal place, e.g.: 3.5E6, (obsolete, recommended 2cd)</p> <p>7 – the real data display in an engineering manner with two decimal place, (obsolete, recommended 2cd)</p> <p>bc – (b and c are code digits) the real data is displayed in fix-point manner with at minimum b places before decimal and c decimal place,</p> <p>e.g. For number 3.149.</p> <p>10: „3”</p> <p>11: „3.1”</p> <p>12: „3.15”</p> <p>20: „03”</p> <p>23: „03.149”</p> <p>1bc– the same manner as bc, but with place for a sign (space for sign „+”, sign ‘-’ for sign „-”),</p> <p>2cd– (c and d are code digits), the real data is displayed in an engineering manner, with place for a sign (space for sign „+”, sign ‘-’ for sign „-”), with c decimal place and exponent expressed by d places. The sign in exponent is always displayed.</p> <table><tr><th colspan="2">e.g. For number 0.001</th><th colspan="2">e.g. For number 1000</th></tr><tr><td>211:</td><td>„1.0E-3”</td><td>211:</td><td>„1.0E+3”</td></tr><tr><td>221:</td><td>„1.00E-3”</td><td>221:</td><td>„1.00E+3”</td></tr><tr><td>212:</td><td>„1.0E-03”</td><td>212:</td><td>„1.0E+03”</td></tr><tr><td>222:</td><td>„1.00E-03”</td><td>222:</td><td>„1.00E+03”</td></tr></table> <ul style="list-style-type: none"><li>• <i>Technique (optional)</i> – Technique</li><li>• <i>LOD (optional)</i> – Limit of detection (Lower and Upper)</li><li>• <i>LODType (optional)</i> – Data type number of LOD</li><li>• <i>Accreditation (optional)</i> – Accreditation body</li></ul>	e.g. For number 0.001		e.g. For number 1000		211:	„1.0E-3”	211:	„1.0E+3”	221:	„1.00E-3”	221:	„1.00E+3”	212:	„1.0E-03”	212:	„1.0E+03”	222:	„1.00E-03”	222:	„1.00E+03”
e.g. For number 0.001		e.g. For number 1000																				
211:	„1.0E-3”	211:	„1.0E+3”																			
221:	„1.00E-3”	221:	„1.00E+3”																			
212:	„1.0E-03”	212:	„1.0E+03”																			
222:	„1.00E-03”	222:	„1.00E+03”																			
<b>TestParametersDescription</b>	cell	Description of the fields of ‘TestParameters’ variable. A cell contains two columns: the first contains the name of the field /column of data, the second contains a description of them. All data must be specified.																				
<b>TimeZone</b>	character	Acronym of Time Zone ( <a href="http://en.wikipedia.org/wiki/List_of_time_zone_abbreviations">http://en.wikipedia.org/wiki/List_of_time_zone_abbreviations</a> ), normally UTC																				

**Table 1. The structure of Multi Dimensional Data Format**

variable	Field name	Storage format
----------	------------	----------------

d	Station_codename	char
	Measurements	struct
	Measurements.Date	double
	Measurements.Tests	struct
	Measurements.Tests.Test_name_id	double
	Measurements.Tests.Result	double
	Measurements.Tests.Result_duplicate	double
	Measurements.Stage	char
	Measurements.Measurement_method	char
TestParameters	Test_name	char
	Unit	char
	Type	double
	Technique	char
	LOD	double
	LODType	double
	Accreditation	char

**Table 2. The format of fields 'd' and 'TestParameters' variables**

**Data details:**

**'d' structure contains the following fields:**

*Station\_codename* – Code name of the station

*Measurements* – Number of measurements or sample collection in the field. Structure containing the following fields:

*Date* – Time of measured parameter/sample collection

*Tests* – Number of test performed/ measured parameters.. Structure containing the following fields:

*Test\_name\_id* – Id of measured parameter/test

*Result* – Result of measured parameter/test

*Result\_duplicate (optional)* – Quality assurance check

*Stage (optional)* – Stage of monitoring

*Measurement\_method (optional)* – Method of measurement

**'TestParameters' structure contains the following fields:**

*Test\_name* – Name of test/measured parameter

*Unit* – Unit of test/measured parameter

*Type* – Data type number

*Technique (optional)* – Technique

*LOD (optional)* – Limit of detection (Lower and Upper)

*LODType (optional)* – Data type number of LOD

*Accreditation (optional)* – Accreditation body

[Back to top](#)