

Historic Environment Polygonisation Standards (Scotland)

Part 2: Technical Appendices





Royal
Commission on the
Ancient and
Historical
Monuments of
Scotland

Royal Commission on the Ancient and Historical Monuments of Scotland

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Front cover: Broomend of Crichton, Aberdeenshire, henge
monument and standing stone. DP011657

Appendix 1

UK GEMINI metadata elements (Table 1)

<http://www.gigateway.org.uk/metadata/pdf/GEMINI2.pdf>
[Accessed 7th October 2009]

Element number	Element name	Obligation †	Number of occurrences ‡
1	Title	M	1
2	Alternative title	O	N
3	Dataset language	C	N
4	Abstract	M	1
5	Topic category	C	N
6	Keyword	M	N
7	Temporal Extent	M	1
8	Dataset reference date	M	1
10	Lineage	M	1
11	West bounding longitude	M	1
12	East bounding longitude	M	1
13	North bounding latitude	M	1
14	South bounding latitude	M	1
15	Extent	O	N
16	Vertical extent information	O	1
17	Spatial reference system	M	1
18	Spatial resolution	M	1
19	Resource locator	C	N
21	Data format	O	N
23	Responsible organisation	M	N
24	Frequency of update	M	1
25	Limitations on public access	M	N
26	Use constraints	M	N
27	Additional information source	O	1
30	Metadata date*	M	1
33	Metadata language*	C	1
35	Metadata point of contact*	M	N
36	Unique resource identifier	M	1
37	Spatial data service type [°]	C	1
38	Coupled resource [°]	C	N
39	Resource type	M	1
40	Originating controlled vocabulary [±]	C	1
41	Conformity	C	1
42	Specification	C	1

Note

Element numbers 9, 20, 22, 28, 29, 31 and 32 have been omitted because they were used to identify elements that have now been deleted from the Standard, and have not been reallocated to avoid confusion.

† 'M' indicates that the element is mandatory, 'C' that it is conditional, and 'O' that it is optional

‡ '1' implies that only one value may be provided, and 'N' implies that multiple values may be provided

* indicates metadata on metadata (see 4.2)

[°] indicates metadata for services (see 4.3)

[±] used for source of keywords

Appendix 2

MIDAS Compliance Table (Map Depiction Information Group)

Unit of Information	M/O	S/R	Notes
Primary Reference Number	M	S	Unique number for this spatial feature. This is usually auto-generated by a GIS system. One Heritage Asset or activity may have a number of GIS features which make up the full spatial depiction. Example: 148698
Primary Reference Number Type	M	S	Used to support interoperability. Default value: "map depiction"
Compiler (Organisation)	M	S	Example: Highland HER
Compiler (Person)	O	S	Example: Ann Higgins
Date of compilation	M	S	Example: 01-May-2007
Date of last update	M	S	Example: 05-May-2007
External Information System	O	R	Example: O.S. Mastermap Toid △
External Information System Primary Reference Number	O	R	Example: 667544325469
Data Capture Process	O	S	Example: Heads up digitising
Positional Accuracy	M	S	Example: Approximate – based on 1st edition O.S.
Quality	O	S	Example: Needs checking from air photos
Spatial Feature Type	M	S	Generally auto-generated by a GIS system. Example: Polygon
X Coordinate	M	S	Example: 341081
Y Coordinate	M	S	Example: 716127
Precision	O	S	Example: 100
Buffer Zone Width	O	S	Example: 50
Representation Source	O	R	Example: O.S. 1:1250 Sheet No 41
Data Capture Scale	O	R	Example: 1 inch to 1 mile

Note

M = Mandatory
O = Optional
S = Single
R = Repeatable

△ The abbreviation 'TOID' stands for Topographic Identifier. This is a 16 digit number that uniquely identifies every feature in OS MasterMap® (Ordnance Survey 2009).

The nine mandatory Units of Information or attributions a polygon requires for it to be MIDAS Compliant.

	Units of Information	Sample information
1	Primary Reference Number	123
2	Primary Reference Number Type	Event
3	Compiler (Organisation)	XYZ Archaeology group
4	Date of compilation	23-June-2009
5	Date of last update	23-June-2009
6	Positional Accuracy	Based on field survey using hand held GPS
7	Spatial Feature Type	Polygon
8	X Coordinate	341081
9	Y Coordinate	716127

Note

The recording of X and Y coordinates is required to enable polygons to be displayed as points at scales where polygonised information is either too small or too complex. It is recognised that there are monuments, particularly linear monuments such as the Antonine Wall, that are unlikely ever to be well represented by a single grid reference. RCAHMS is in discussions with the MIDAS Heritage steering committee to look at how MIDAS Heritage attributions might be developed in this area.

Appendix 3

Abridged MIDAS Dictionary

Primary Reference Number

Definition	A unique number, or number and character combination, allocated to identify one entry in an information system.
Guidance	<p>For manual systems, a sequential numbering system for inventory entries is recommended to ensure each number is unique. Computerised systems should automatically generate their own unique reference number. A centrally controlled list of primary reference numbers should be maintained. Avoid duplication. Once assigned, primary reference numbers should not be re-used if the original entry is deleted.</p> <p>N.B. For export of data, the Primary Reference Number should be qualified with the name of the Information System from which the entry is exported to make the reference number globally unique. UK users should register a name or names for their information system(s) with HEIRNET (see the 'Further information' section).</p>
Controlled entry	Yes.
Examples	1000; 1267; AB241C. With an Information system name: Historic Landuse Assessment 141341.

Note

The following definitions were originally published in Midas Heritage Vol. 3. For ease of use, the definitions are listed in the order they appear in the Map Depiction Information Group Compliance Table. Units of Information that are additional to the Map Depiction Information Group are listed at the end. The original examples may have been changed to provide examples relevant to the creation of Historic Environment Polygons.

Primary Reference Number Type

Definition	The meaning of a primary reference number.
Guidance	Used with exported data to distinguish primary reference numbers that identify different things within MIDAS. It is not necessary to report Primary Reference Number Type against every entry in a dataset in normal use. However default values should be included with the data at the point that they are exported.
Controlled entry	Yes.
Examples	Scheduled Monument; Conservation Area; Garden and Designed Landscape; World Heritage Site; Historic Landuse Assessment; Event Extent; Intervention Extent; Known Site Extent; Buffered Site Extent; Consultation Trigger.

Compiler (Organisation)

Definition	The name of the organisation responsible for the compilation or curation of entries in a dataset.
Guidance	Use to establish the provenance of the original entry during data exchange. Typically this data will be added as a default value when entries are exported.
Controlled entry	Yes. Use the format, language and spelling as they appear on official documents from the organisation.
Examples	WOSAS; Orkney Council; East Lothian Council; RCAHMS; HS; AOC; Headland Archaeology; GUARD.

Compiler (Person)

Definition	The name of the individual responsible for the compilation of the entry.
Guidance	Use to establish the provenance of the entry within an organisation. Use a consistent format of the individual's name. Sufficient detail should be included to create a unique name (ie, by the inclusion of middle names where necessary). Where possible, use and maintain a controlled list.
Controlled entry	Yes. Maintain a standard list of names.
Examples	John Smith; Anne J Saunders.

Date of Compilation

Definition	The date on which an inventory entry was first added to the inventory.
Guidance	Enter a date specific to a given calendar day. Adopt a consistent format for recording calendar dates throughout the inventory. Use with Compiler (Person) .
Controlled entry	Yes. A consistent format for recording calendar dates should be adopted.
Examples	21-Dec-2008

Date of Last Update

Definition	The date on which an inventory entry was most recently revised or updated.
Guidance	Enter a date specific to a given calendar day. Adopt a consistent format for recording calendar dates throughout the inventory. Use together with Compiler (Person) .
Controlled entry	Yes. A consistent format for recording calendar dates should be adopted.
Examples	21-Dec-2008

External Information System

<p>Definition</p>	<p>The full name of an inventory or other information system holding information to which an entry in your information system is cross-referenced.</p>
<p>Guidance</p>	<p>Entries should be sufficient to allow the other information system to be unambiguously identified. Where used, care should be taken to standardise abbreviations.</p>
<p>Controlled entry</p>	<p>Yes. Maintain a standard list of terms. Use the full name for the external information system as used by its compilers. This may include the organisation name where appropriate. For information systems in the historic environment sector, the HEIRNET Registered name should be used. (The HEIRNET register aims to help organisations that maintain information about the historic environment to work together, sharing skills and improving access to their information resources for conservation, research, learning and general interest.)</p>
<p>Examples</p>	<p>Perth and Kinross Sites and Monuments Record (SMR); Stirling Sites and Monuments Record (SMR); Scheduled Monuments Information System.</p>

External Information System Primary Reference Number

Definition	The primary reference number as used by an external information system with which an entry in your inventory is cross-referenced.
Guidance	An external information system could refer to one used by another heritage organisation or a different information system in use within your own organisation. Used with External Information System . Where compound primary reference numbers have been used by the external information system, care should be taken to ensure that all the information needed to unambiguously identify the entry is included. A controlled list of the proper formats of the numbers used by external inventories (including spaces, punctuation marks, etc.) should be maintained to ensure consistency.
Controlled entry	No. Entries should exactly follow the format used by the external information system.
Examples	40562; KE 124/a; SM 12345; 0 9508448 7; ND1987.01.

Data Capture Process

Definition	The technique by which the spatial object has been captured.
Guidance	This is recorded to ensure the spatial object is interpreted correctly. Capture from desk-based digitising will differ from accurate survey work.
Controlled entry	Yes. ALGAO events list.
Examples	Desk-based Digitisation; Field Survey.

Positional Accuracy

Definition	The accuracy of the data source used to locate a feature.
Guidance	Record any limitations on the accuracy imposed by the use of particular source data. A feature might be recorded as a polygon but it might be that the location of that feature within the polygon is unknown.
Controlled entry	No. Free text.
Examples	Approximate location from 1st Edition Map (1870).

Quality

Definition	A description of any quality checking to a map depiction.
Guidance	Free-text field with details of the quality checking which allows users to know what checking has already taken place and highlights issues which are currently known about the spatial representation of a feature.
Controlled entry	No. Free text.
Examples	Boundaries are indicative based on currently known extent of archaeological features.

Spatial Feature Type

Definition	The spatial object type used to depict the spatial element of a feature.
Guidance	This is usually auto-generated by a GIS system. Different systems will use different terminology/numbering systems. Adoption of common terminology becomes significant when data is shared between different systems.
Controlled entry	No. Free text. For storing this data in databases, use of the Well-Known Text standard from the Open Geospatial Consortium is recommended.
Examples	Point; Polygon; Multipoint.

X Coordinate

Definition	The numerical easting (X) coordinate for a feature.
Guidance	Generally six-figure coordinates are necessary, following UK standards for GIS. Single coordinate pair (ie, with Y coordinate) will identify a point. This will be assumed to be a centroid for a recorded feature unless otherwise documented. Repeat values in pairs with Y coordinates form lines or polygons.
Controlled entry	Yes. Numerical values only.
Examples	456789

Y Coordinate

Definition	Numerical northing (Y) coordinate for a feature.
Guidance	Generally six-figure coordinates are necessary, following UK standards for GIS. Single coordinate pair (ie, with X coordinate) will identify a point. This will be assumed to be a centroid for a recorded feature unless otherwise documented. Repeat values in pairs with X coordinates form lines or polygons.
Controlled entry	Yes. Numerical values only.
Examples	234567

Precision

Definition	The precision of the data source in metres.
Guidance	Precision is a measure of how specific the information given about a location is. For example, a 12-figure grid reference is much more precise than a six-figure grid reference. This is not the precision of the data within the GIS (which is often higher than the source). A 12-figure grid reference would be precise to 1m; a six-figure grid reference would be precise to 100m.
Controlled entry	Yes. ASPIRE precision pick list.
Examples	Within 1m, Within 5m, Within 10m, Within 50m, Within 100m, Other: See Associated Record.

Buffer Zone Width

Definition	The radius or width in metres of a zone around a point/line/polygon.
Guidance	Used to indicate an area beyond the recorded extent of a spatial feature to alert potential users to the presence of the feature during searching. Can be used to generate simple polygons from point data.
Controlled entry	Yes. Numeric data expressed in metres.
Examples	200.

Representation Source

Definition	The source map, chart or document used to define a Map Depiction entry.
Guidance	Adequately detailed information should be recorded to allow a user to gauge how the source used might affect the quality of the map depiction.
Controlled entry	No. Free text.
Examples	OS 1:10,560 Epoch 2 London; OS 1:10,000; Admiralty Chart 2175-0.

Data Capture Scale

Definition	The scale of the original map from which a spatial feature has been digitised
Guidance	This is recorded to ensure the spatial feature is interpreted correctly. Data captured from a small-scale map may well not be adequately accurate when viewed or combined with data digitised from large-scale maps.
Controlled entry	Yes. Maintain a list of terms, or follow exactly the wording given on the original map
Examples	1:25,000

Contact Point

Definition	Information identifying how a person or organisation can be contacted.
Guidance	<p>Use with Contact Point Type (if needed) to describe the nature of the contact point (ie, postal address, telephone number, URL, etc.). Repeat as many times as required. If a greater degree of precision is required, particularly for information exchange, use an alternative standard such as BS7666, vCard, etc.</p> <p>Principally used for current, living or active individuals or organisations. For deceased individuals this could be the executors or trustees of their estate, or for defunct organisations or groups, it could be a successor organisation or umbrella body.</p>
Controlled entry	No. Free text.
Examples	<p>Database and Aerial Survey Manager, John Sinclair House, 16 Bernard Terrace, Edinburgh, EH8 9NX Tel 0131 662 1456 info@rcahms.gov.uk</p>