Section 6. Subsets of Documentation#

As mentioned in Section 3, the Archive consists of three main components: (i) geophysics data, (ii) project material and (iii) project documentation. The latter includes geophysics metadata, geophysics georeferencing, project metadata and file description. The metadata can be thought of as that information that can easily be stored in a database and Section 5 introduces a comprehensive list of metadata fields that are most relevant for the documentation of archaeological geophysical projects. However, some Archiving Bodies store only a subset of these fields in their database or may use slightly different field names, thereby often only offering a subset of the Comprehensive Documentation. In addition, they may insist on the use of particular term lists. When compiling the relevant metadata, for example in an in-house database, it is advisable to start with a fairly comprehensive set of documentation and then 'thin it out' according to what the selected Archiving Body can hold. If the characteristics of these varying practices were captured in XML schemas and RDF vocabularies, automatic translators could be designed to facilitate simple data exchange.

To illustrate subsets of the Comprehensive Documentation it is useful to look at the ADS archive and the ADS ArchSearch database, the OASIS database, and the English Heritage geophysical survey database (EH GSdb). Out of these only the ADS can be considered an Archiving Body as it provides full archiving services for data and metadata, with data migration, preservation and accessibility (Level 4 - Accessible Archiving, in Section 3.4). However, its main search interface, ArchSearch, uses only a subset of the metadata (derived from Dublin Core metadata) when facilitating the discovery of the Archive over the Internet. In contrast, OASIS and the EH GSdb use a very full subset of the Comprehensive Documentation but do not store the rest of the Archive, like data files, georeferencing information etc. Table 5 provides the mapping of metadata fields between the Comprehensive Documentation of Section 6 and OASIS, the EH GSdb and the fields used in ArchSearch. Other Archiving Bodies and database holders will also have developed relevant data structures for their databases and mapping these subsets to the Comprehensive Documentation should not pose too much of a problem.

Project Information			
Comprehensive Documentation	**OASIS Form Field**	**EHGSdb**	**Dublin Core (ArchSearch)**
Survey name	Project Details: Project Name	Project Title	Project Title
Survey index	Project Details: Identifier; Type	Survey index	Identifiers
Survey purpose	Project Details: Type of Project; Description	Purpose of Survey	Description
Report summary	Project Details: Description	Synopsis of report content	Description
Bibliographic references	Project Bibliography section	Bibliographic References	Relations
Survey keywords	Project Details: Monument Type; Significant Finds	Archaeological Feature Classifications	Subject
Spatial coverage	Project Location: Study Area; Site Coordinates	Grid Reference	Coverage
Administrative area	Project Location: District/ Unitary Authority; Parish	County/Unitary Authority	Coverage

State	Project Location: County		Coverage
Country	(England; Scotland; Wales depending on form used.)	Country	Coverage
Solid geology	Project Details - Geophysics: Solid Geology	Solid Geology	
Drift geology	Project Details - Geophysics: Drift Geology	Drift Geology	
Duration	Project Details: Project Dates	Occurred between	Dates
Weather		Weather	
Soil condition			
Land use	Project Details: Current Land Use	Land use	
Monument type	Project Details: Monument Type	Monuments covered	Subject
Monument period	Project Details: Period	Monument period	Coverage
Scheduled Ancient Monument (SAM) number	Project Details: Identifier (Type = 'SM No.')	Scheduled Ancient Monument (SAM) number	Identifiers
Surveyor	Project Creators: Name of Organisation; Project Director/Manager; Project Supervisor	Surveyor/Personnel	Creators
Client	Project Creators: Project Brief Originator; Type of Sponsor/Funding Body	Client	Creators
Depositor	Project Creators: Name of Organisation	Depositor	Creators
Primary archive	Project Archives: Physical; Digital; Paper - all fields	Primary archive	Relations
Related archives	Project Archives: Physical; Digital; Paper - all fields	Related archives	Relations
Copyright		Copyright	Copyright
Term list	Dependent on Monument / Artefact fields and location of site (i.e. relevant English, Scottish, Welsh lists)		
Geophysics Metadata			
Comprehensive Documentation	**OASIS Form Field**	**EHGSdb**	**Dublin Core (ArchSearch)**
Survey type	Techniques	Geophysical Techniques Used	Resource Type

Instrumentation	Project Details - Geophysical techniques: Instrumentation / Instrument Type	Instrument Type/ Instrument make	
Reasons for choice of survey technique			
Area surveyed	Project Details - Geophysical techniques: Size of Survey Area	Area Surveyed	
Method of coverage		Method of coverage	
Traverse separation	Project Details - Geophysical techniques: Traverse Separation	Traverse Separation	
Line separation			
Reading interval	Project Details - Geophysical techniques: Reading Interval	Reading Interval	
Sampling position			
Data grid size			
Accuracies			
Additional remarks	Project Details - Geophysical techniques: Notes	Comments on Survey	
Earth Resistance Surveys			
Comprehensive Documentation	**OASIS Form Field**	**EHGSdb**	**Dublin Core (ArchSearch)**
Electrode configuration	Project Details - Geophysical techniques: Resistivity: Electrode Configuration	Electrode configuration	
Electrode spacing	Project Details - Geophysical techniques: Resistivity: Electrode Separation; Electrode Separation Qualifier	Electrode separation	
Multiple configurations			
Magnetometer Surveys			
Magnetic north			
Instrument drift			
Low Frequency Electromagnetic Surveys			
Coil configuration	Project Details - Geophysical techniques: Electromagnetic: Coil Separation; Frequency; Phase		
Recorded component	Notes		
Ground Penetrating Radar Surveys			
Comprehensive Documentation	**OASIS Form Field**	**EHGSdb**	**Dublin Core (ArchSearch)**

Antenna information	Project Details - Geophysical techniques: Ground Penetrating Radar: Centre Frequency of Antennae		
Timing information	Project Details - Geophysical techniques: Ground Penetrating Radar: Time Window;		
Average subsurface velocity	Project Details - Geophysical techniques: Ground Penetrating Radar: Average Subsurface Velocity		
Maritime Sonar Surveys			
Comprehensive Documentation	**OASIS Form Field**	**EHGSdb**	**Dublin Core (ArchSearch)**
Average water velocity	Project Details - Geophysical techniques: Marine - multibeam echosounder: Average Water Velocity		
Sonar frequency	Project Details - Geophysical techniques: Marine - multibeam echosounder: Frequency		
Beam width at nadir	Project Details - Geophysical techniques: Marine - multibeam echosounder: Beam Width Nadir		
Survey Methodology			
Comprehensive Documentation	**OASIS Form Field**	**EHGSdb**	**Dublin Core (ArchSearch)**
Data grid layout			
Data grid size			
Resolution			
Survey direction			
Line sequence			
Drift value			
Bias value			
Report			
Comprehensive Documentation	**OASIS (form field titles - not DB fields)**	**EHGSdb**	**Dublin Core (ArchSearch)**
Report title	Project Bibliography: Title	Report Title	
Report reference number	Project Bibliography: Other bibliographic details	Report Number	
Report author	Project Bibliography: Author / Editor	Author/Report Date	
Report holder		Report held by	

	Project Bibliography: Place of Issue or Publication		

Table 5: Mapping of documentation: Comprehensive, OASIS, EH GSdb, ArchSearch.

In addition, the term list used for the field Survey type differs between different organisations, as indicated in Table 6. The mapping between them is straight forward.

Comprehensive Documentation	OASIS	EH GSdb
Magnetometer Survey (land based)	Magnetometry	Magnetometer
Magnetometer Survey (marine)	Marine - Magnetometry	
Magnetic Susceptibility (volume- or mass specific susceptibility); including random samples, gridded, lab based measurement of samples and field based in-situ measurements"	Magnetic Susceptibility	Magnetic Susceptibility
Earth Resistance Survey	Resistivity - Area	Resistivity
Electrical Resistivity Imaging (ERI); including pseudosections and tomography	Resistivity - Profile	Resistivity Profile
Vertical Electrical Sounding (VES)		Resistivity Depth Sounding
Electrostatic Survey		
Low Frequency Electromagnetic	Electromagnetic	Electro-magnetic Survey
Ground Penetrating Radar (GPR)	Ground Penetrating Radar	Ground Penetrating Radar
Seismic	Seismic	Seismic Refraction
Microgravity	Microgravity	Microgravity
Magnetotelluric		
Very Low Frequency Electromagnetic (VLF)		
Radioactivity		
Side Scan Sonar (SSS)	Marine - Side Scan Sonar	
Singlebeam Echosounder	Marine - Singlebeam Echosounder	
Multibeam Echosounder	Marine - Multibeam Echosounder	
Sub-bottom Profiler	Marine - Sub-bottom Profiler	

Table 6: Term lists for the field Survey type