

Section 4: Documenting Data from CAD Projects#

4.1 Why Document your Data?#

Those working with CAD will be very familiar with its wide range of different uses. CAD software may be used to design something new or to record existing objects and structures. CAD projects differ widely and so do their outputs, which can range from very complex three-dimensional models to simple two-dimensional drawings. Projects may involve using CAD software to capture models which are transferred into GIS, to form the basis of virtual reality models or simply to create illustrations that are incorporated into reports and other publications.

While work is underway, it is relatively easy to remember the steps that have been taken to produce a model but, even after a short time has passed, it can become increasingly more difficult to remember how data were produced or compiled from different sources. As a result, it is helpful to prepare documentation as CAD projects proceed, recording the process by which models were created. The documentation produced will help both the project team and others in the future to assess the fitness of a model and datasets for use in particular purposes. This documentation will also form a vital component of the digital archive from a CAD project.

Depositing data in an archive is often the final stage of a project. Depositing data is important, not only to ensure preservation but also because it prompts the necessary attention to documentation throughout the project. The benefit is that once the data and its supporting documentation have been deposited the information contained therein can be made available for years to come.

Levels of Documentation and Metadata

Documenting a large project that has produced thousands of CAD files may seem daunting. However, each individual CAD file does not necessarily require individual documentation containing thousands of pieces of information. To do so would be prohibitively expensive in terms of time and effort and would probably be unnecessary. Instead the amount of documentation can be minimised if it is produced in layers which relate to stages of the overall project. For example:

- Overall project description
- Methods and conventions of data capture
- Individual model documentation.

This system avoids duplication of information, so that details about the project, sources and the methods of data capture can be recorded once and then cross-referenced from the individual file documentation. Documentation at the individual file level can also be minimised if project managers decide to adopt standard layer-naming and other conventions at the outset of the project and there are no cross-reference files or attached databases. What is important is that the more detailed information is available within the documentation hierarchy, and that it can be easily located.