



**UK BIM Alliance - Security Guidance  
Information Structures**

<b>Title of guidance:</b>	<i>Information structures and consistent file naming</i>
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<b>Objective of guidance:</b>	<i>The purpose of this guidance note highlight how information structures and consistent file naming can aid in adopting a baseline security approach to information management</i>

<b>Abbreviations/acronyms</b>	<b>Full name</b>
<i>CDE</i>	<i>Common Data environment</i>

<b>Relevant/referenced sources</b>	
<i>BS 1192:2007+A2:2016</i>	<i>Collaborative production of architectural, engineering and construction information – Code of practice</i>

<b>Keywords:</b>	<i>Structure, naming, classification, folder, container, access, permission</i>
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### **Briefing note text**

The way in which project information is structured and managed should be considered as early as possible in a project's life and ideally, before a common data environment (CDE) is in place.

Information can be structured by file name and then it can be grouped into classifications, folders, channels or containers.

In terms of file naming BS1192:2007 + A2:2016 sets out:

- A structure for file naming
- A means for identification of file status ( for example, S2 = suitable for information), and
- Referencing for revision (in relation to the file status)

The use of status and revision references enables a file to 'travel' through a CDE from work in progress, to 'for information purposes', to a file to support procurement through to files for contract and asset operation. This approach also enables a user to understand the file context and helps the user to apply the contents of a file appropriately.

Consistent structures also support effective access and permission management.

### **The need for consistent file naming**

The use of a consistent file naming structure:

- Enables effective collaboration (people with access to the CDE can look at a file name and understand what building it relates to, what the document type is, who has generated it etc.).
- Negates the need for lengthy file descriptions. For example file naming in accordance with BS 1192:2007 + A2 2016 identifies what level of a building a drawing relates to. There is consequently no need to describe a file as relating to the 'first floor'.
- Aids in use of file information in context, reducing the likelihood of misinterpretation.
- Assists in search and retrieval of files – this is essential where the CDE becomes a repository of a large volume of files. A structured file naming approach will support multiple search



options and aids productivity because search time is reduced. In addition use of status and referencing means that time is not lost understanding the context or purpose of the file

- Offers a good practice approach to organisation of file management without necessarily revealing too much information about the project or activities going off within it. This is essential in a security minded project but is a sensible approach for any project
- Creates a disciplined approach across the entire design and construction team
- Avoids complication that arises where multiple structured/non-structured naming systems are in place

### **How the file naming structure might be built up**

According to BS1192:2007 + A2:2016, the file naming structure comprises:

- Project Identifier
- Organisation – the originating organisation
- Volume – (logical sub-division of the project)
- levels – (floor level)
- Type – the type of file (i.e. report, drawing)
- Role – of the origination organisation
- Sequential number

The file name is then supplemented with a short, appropriate description.

The standard provides references and indications of character limits.

### **Information structures**

Adopting a logical filing structure (in addition to a file naming structure) can assist in managing access to files held on a CDE. Often the CDE will collate files into containers, folders, channels or classifications (groups) and access can then be granted to files held within certain groups. Hierarchical grouping can offer increasingly granular access management but this might need to be weighed against administration efforts and overall benefit provided.

As well as supporting access a grouping arrangement enables denial of access and can be used to grant individuals specific file permissions (read, edit etc).

### **Things to think about for baseline security**

Adopting a structured file naming approach is useful in supporting baseline requirements for security. Key considerations include:

- Is it necessary to identify the project by its name or any other indicator which might reveal its purpose – can the project name be a short alpha-numeric reference?
- Is it necessary to identify what activities the file relates to – for example, does a file name need to indicate that it refers to emergency evacuation procedures?
- Is it necessary to identify the rooms or spaces that might be referenced in the file, in the file name – can these be allocated an alpha-numeric reference. For example does the file description for a room data sheet for a hospital drugs store need to reference that it is a drug store?

For file groupings think about:

- The degree of access management required. Does everyone working on the project need to see every file relating to the project? Providing people with access to everything can be as frustrating as not giving people access to files they need.
- Do people need to see groupings holding files that they don't have access to?



- How file permissions will be managed – should everyone involved in the project have the same file permissions or do some people need different permissions to others for different files?
- If you have multiple projects being managed using a CDE should all projects be visible to all people working on one of more of the projects