A protocol for operational BIM

By Simon Lewis | 25 March 2022

Unpacking the new digital data management protocol for the operational, rather than delivery, phase of a building's lifecycle

The international standard BS EN ISO19650-3 deals with digital information management during the operational phase of an asset's lifecycle. The management of digital information during the delivery phase of the asset, on the other hand, is covered by BS EN ISO19650-2. In 2020 the UK BIM Framework and the Construction Industry Council published an information protocol that gathers together the legal and contractual requirements arising from ISO 19650-2. A new protocol linked to ISO 19650-3 was published in November; it is available on the UK BIM Framework website. For the sake of brevity, this is referred to as IP3 and the protocol dealing with ISO 19650-2 as IP2.

The structure and layout of IP3 reflects that of IP2. Both protocols set out the obligations of the parties, the establishment of the common data environment in which the information is stored and accessed by the parties, and the management and use of that information.

Like IP2, IP3 has as its front page the information particulars; the place where all the documentation relevant to information management is identified and recorded. It is sufficient simply to complete the information particulars on the front page to make the protocol effective.

It is of course possible to amend the protocol on a project-specific basis, but that is not necessary. What is important is that the protocol is incorporated properly into the contract.

IP2 deals with a specific project (the design and construction of the asset) whereas IP3 covers the operational phase which is, of course, a far longer period of time. The focus of IP3 is therefore on the asset itself rather than on the project. Consequently, paragraph 6 of the protocol, dealing with the management of information, concentrates on information requirements centred around the asset and how these relate to the information requirements of the owner of the asset. The information model linked to this phase of the asset's lifecycle is known as the asset information model (AIM).

It also follows that the AIM has to be more flexible because it is covering a period of time during which things can be expected to happen but also during which there will be unexpected events. The IP3 therefore adopts a new definition to cater for these planned and unplanned occurrences: trigger events. Trigger events that you know will happen are foreseeable trigger events. These should be added to the trigger event schedule, which is one of the documents listed in the information particulars in IP3.

A trigger event is something that happens to an asset which requires something to be done to the asset as a result. An example of a planned trigger event would be annual maintenance operations which can be foreseen and catered for well in advance.

These maintenance operations will require work to be carried out to the asset: for example, if the asset is a building, replacing items of plant or equipment, checking the HVAC system and testing and maintaining the sprinkler system. An unplanned trigger event could be a flood in the building which requires extensive refurbishment works to be carried out.

Another sort of unplanned trigger event would be the decision to build a major extension to the building. Unlike the flood example, this is not entirely unforeseen since it would clearly require planning, but it is unplanned in that it might not be anticipated at the start of the operational phase. A list of example trigger events can be found at section A.3 of the annex to ISO 19650-3.

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Paragraphs 3.3 and 3.4 of IP3 set out what happens when a trigger event occurs (whether planned or unplanned) and how that is dealt with. In short, it is down to the appointing party to decide how to respond, either by using the existing AIM or, if the trigger event gives rise to particularly extensive works, by creating a standalone project using ISO19650-2 in the same way it would be used during the delivery phase.

If the decision is taken to proceed as a standalone project rather than using the existing AIM, paragraph 3.4 deals with the information flow in both directions between the ongoing asset model and the separate project delivery model. Reciprocal clauses have been added into IP2 to deal with this scenario.

The parties to a contract covering the operational phase of the asset (such as a facilities maintenance agreement) will need to consider how best to incorporate the protocol into the

contract and to ensure that this is reflected through the supply chain as required in the same way IP2 is currently used. It is to be hoped that this will address the need to ensure that there are adequate legal obligations in such contracts to cover information management and that IP3 continues to contribute to the dissemination and understanding of information management throughout the lifecycle of the asset, along with IP2 and all of the other excellent guidance and resources that are available on the UK BIM Framework website.

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