

HOW TO USE YOUR TOGAF KNOWLEDGE



If you do a Google search for “building blocks”, the image that you get back is more likely to be of children’s toys than anything to do with enterprise architecture. The concept of a building block isn’t difficult – it’s clear, as dictionary definitions show, that a building block is simply “a unit of construction or composition”. In this article, and in three related posters, we aim to give you a simple overview of how building blocks are used, based on the TOGAF documentation.

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TOGAF® devotes three definitions to building blocks in Chapter 3 of its documentation:

- Section 3.23 Building Block says “A (potentially re-usable) component of enterprise capability that can be combined with other building blocks to deliver architectures and solutions.” In the latest version (9.2) it adds a note that “Building blocks can be defined at various levels of detail, depending on what stage of architecture development has been reached. For instance, at an early stage, a building block can simply consist of a name or an outline description. Later on, a building block may be decomposed into multiple supporting building blocks and may be accompanied by a full specification. Building blocks can relate to “architectures” or “solutions”.”
- In section 3.8 Architecture Building Block (ABB) is “A constituent of the architecture model that describes a single aspect of the overall model.”
- And in section 3.70 Solution Building Block (SBB) is “A candidate solution which conforms to the specification of an Architecture Building Block (ABB).”

That’s the formal definitions out of the way, but to be honest the definitions don’t add much to the simpler dictionary definition. Building blocks are also described in Part IV, 33. Building Blocks, which is divided into an Introduction to the concept and a section that focuses on building blocks in the ADM. But once again, there isn’t much to show how building blocks are used in real practice.

KEY POINT 1

The most important thing to understand about building blocks is that they are the enterprise architecture. In section 33.3.1.1 Building Blocks in Architecture Design, TOGAF states that “An architecture is a set of building blocks depicted in an architectural model, and a specification of how those building blocks are connected to meet the overall requirements of the business.” (I’ve added the italics to emphasise this point.) The building blocks are literally the blocks that form an enterprise architecture. The enterprise architecture can therefore be described in terms of its constituent building blocks. This is what we do when we create an architectural model or an architectural definition (note here that TOGAF brings these depictions together in the Architecture Definition Document). When the enterprise architecture is realized as a working system (or set of systems) it is achieved by creating the required building blocks, and then configuring or connecting them in a specified way.

KEY POINT 2

Now it can be confusing when TOGAF breaks building blocks down in to the two types – Architecture and Solution Building Blocks (ABBs and SBBs). This separation is repeated in the Enterprise Continuum (Chapter 35), which maintains the distinction between the Architecture Continuum and the Solutions Continuum. There is a simple explanation of the difference – in enterprise architecture it is useful to separate the architectural concepts from the way in which they are implemented.

Let me give you an extreme example. At the start of my career I was involved in a pioneering EA project at Westpac bank in Australia. The Westpac architecture was a prototype for nearly all enterprise architectures that we have today, but at the time the architectural concepts were revolutionary. The financial product and process architectures were highly modular, with high-level classes and subtypes, and parameterised building blocks. The aim was to be able to adapt and change systems quickly and easily by adding new sub-type components and changing values for the parameterised business rules. Today this can easily be achieved by contemporary solution building blocks using services and web technologies. BUT in the 1980s and 1990s Westpac had to do this with COBOL code on mainframe computers. The solution building blocks today are radically different from the ones used by Westpac in 1990... But the architecture building blocks are pretty much identical. By separating architecture from solutions, we can create architecture designs that are long-lasting and able to survive the more rapid evolution of new technologies and solutions. I’ve cleared up some of the conceptual questions around building blocks. If you want to learn more about how they are used in practice, then go to our three related posters:

1. How to describe the current architecture using building blocks.
2. How to describe the target architecture using building blocks.
3. How to create a roadmap using building blocks.





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