

Modeling structure with Blocks

This section describes how to work in two different types of diagrams that will model a structure of systems: the [SysML Block Definition Diagram](#) (BDD) and [SysML Internal Block Diagram](#) (IBD). The elements in the BDD are **elements of definition**, while the elements in the IBD are **elements of usage**. Elements of definition describe unique instances and can be reused in multiple contexts to share this definition; e.g., the [Block](#) is a definition and is used as a type in the IBD. The IBD displays usages of [Blocks](#) that are the [Part Properties](#) and [Reference Properties](#) of the Block. In other words, the Part Properties are the usages of the Block in the context of composing the Block.

Read the following topics to learn how to model your structure:

- [Defining Blocks in Block Definition Diagram](#)
- [Decomposing Blocks](#)
- [Defining interfaces using ports](#)
- [Connecting Blocks in SysML Internal Block Diagram](#)
- [SysML specific compartments](#)
- [Using Units](#)
- [Initial Values](#)
- [Creating Interface Control Document tables](#)
- [Rollup Pattern Wizard](#)
- [Layout templates](#)
- [Diagram aspects](#)
- [Automatic Instantiation wizard](#)
- [Extract Structure Wizard](#)