AVIXA Parameter List User Guide

The AVIXA BIM Parameter List is to be used as a guide for parameters that should be built into BIM elements for audiovisual-related devices. Using this guide will help to standardize content within the industry, allow greater interoperability between members, and provide detailed metadata to models in an organized format. This parameter list is focused on data that is most likely to be shared, scheduled or exported from the model.

Content creators will find that additional parameters are required to make a fully functional parametric element. These include parameters to control dimensions, insertion location and visibility characteristics. Typically the data included in these types of parameters does not need to be shared; therefore, it is up to the content creator to define what is required on a case-by-case basis. Utilizing industry best practices for naming and organizing the parameters not defined in this parameter list is recommended. The following guidelines are offered for non-listed parameter naming:

- Keep names as short as possible.
- Avoid abbreviation and truncation, when possible.
- Use title casing (parameters are case sensitive).
- Avoid using symbols in the name.
- Do not include units in the name.
- Name Yes/No parameters so that they imply that they return a Yes/No value
  - Has Handle
  - Is Flush
  - Show Mount

Columns

Parameter Name

The value which appears in the Parameter Name column of the AVIXA BIM Parameter List is the exact name of the parameter within the element in the model. Utilizing this value will help with population of the model database in a standardized, controllable manner. Some BIM software may already have some of the parameters listed in the AVIXA BIM Parameter List built-in as system parameters. If any such parameters are provided by the software with the same name, they should be used rather than creating a new parameter with a duplicate (or nearly duplicate) name.

Description

The Description column characterizes what the value of the parameter should be. The Description may also include instructions on how to properly calculate the value of the parameter as well as how to correctly format the value. It is important to follow any instructions on calculation and formatting to ensure both high quality data and interoperability.

Type

The Type column defines the structure of the parameter value. The following are descriptions of each type used:

Text: A text parameter is completely customizable and can consist of any characters. This parameter type can be used to collect unique data not covered by any of the categories below. If the value of this parameter could better be served by another type listed below, it should be set as that type.

Integer: An integer type parameter's value is always expressed as a whole number. These parameter types are most often associated with a quantity. These parameters can be used in formulas.

Number: A number parameter type is used to collect miscellaneous numeric data which may or may not be an integer. This value type can be defined by a formula and can also be a real number.

Length: A length parameter type is used to establish the length of an element or subcomponent. This value type can be defined by a formula.

Area: An area parameter type is used to establish the area of an element or subcomponent. This value type can be defined by a formula.

Volume: A volume parameter type is used to establish the volume of an element or subcomponent. This value type can be defined by a formula.

Angle: An angle parameter type is used to establish an angle within an element or subcomponent. This value type can be defined by a formula.

Currency: A currency parameter type is for cost information.

URL: A URL parameter type provides a web link to a user-defined URL.

Yes/No: A Yes/No parameter type is used most often for properties for which a binary value of either "yes" or "no" is applicable.

Units

The Units column defines what units the parameter value should be expressed in when populated. Where applicable, both imperial and metric units have been listed. A majority of BIM software is capable of converting certain types of parameters automatically between the two measurement systems. This conversion typically applies to weight and measurement parameters. However, this conversion does not take place for general number parameters. For example, the "Heat Load Active" parameter is only a number with no defined units in the software, and thus does not have the ability to tell the software how to automatically convert between the systems. All units should be provided using a single measurement system throughout the element. It may be beneficial to generate two sets of weight and measurement data to define an element, one in imperial and one in metric.

Example

The Example column provides an example value for the parameter.

Parameter Organization

BIM element parameters are divided into the following two major groups:

Required Parameters

Required parameters should exist in all elements as they provide data which is generally universal across all products. Additionally, this data is the most likely to be utilized by those outside of the audiovisual industry. Even if the parameters are not going to be populated by the content creator, they should still be built into the element to be populated at a later time by the user of the element.

Suggested Parameters

Suggested parameters are to be used at the discretion of the content creator based on which parameters can be applied to his/her particular product. For several major product categories, a suggested list of parameters to be included has been shown. Content creators are free to add parameters beyond what is listed; however, they should do so only if no reasonable parameter exists to meet the needs of that particular element and they should follow the guidelines listed above.