

## False Positive

BIM & Scan AutoCorr™ requires users to utilise proper modelling techniques. We have done our best to briefly explain the geometry requirements for BIM & Scan AutoCorr™ model input files. Files can fail when processing them with BIM & Scan AutoCorr™. File failures such as segmentation errors, etc. occur from not modelling the geometry properly or relying on third party geometric objects that were not modelled properly. Below are the ways to prevent errors such as these from happening.

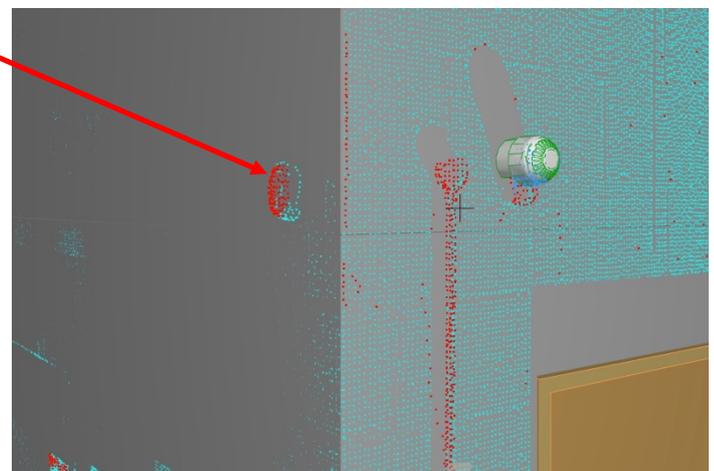
Below we describe a False Positive produced due to modelling error, i.e. model doesn't contain a built element.

**Investigation:**  
False Positive

False Positive

**Cause:**  
Design Model missing As-Constructed model element

**Findings:**  
If you look at the image attached, one can see, even at Tolerance = 25mm, the smoke detector on the left side of the wall that has some red and the light blue wall colour associated with it. To the untrained eye it looks as if it may be a correct correspondence, especially if one is looking only at the semantic point cloud.



- **Why?** The key indicator this is a false positive is no two IFC entity types can have the same colour by design of BIM & Scan AutoCorr™. The [ifc2x3tc1 EntityType Colorization File.pdf](#) assures all entity types have a unique set of RGB values associated with it.

For example:

The smoke Detector should be;  
IfcDistributionFlowElement

<b>R</b>	<b>G</b>	<b>B</b>
12	228	243



And, the Wall is;

IfcWallStandardCase

10	224	221
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**Solution:**

The solution in this case is straight forward, the design model doesn't contain the built object. If one looks at the right side of the wall it is clear that the Internal Fire Alarm Sounder, which is an

IfcDistributionControlElement, has a different colour association and a design model element matching in position. This is a true positive and the opposite case as from the main focus here in.

**Recommendation:**

The recommendation in this case would be to train the eye to notice these issues. It is recommended to not count or include objects that are of different type, and have the same colour, because this is not technically correct. If this happens and is a design element, then one of the object is semantically wrong and misclassified. Best practice is to assure all IFC Entity Types are properly classified.