

The use of the Label -attribute in IFC R2.0

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Most objects in the IFC R2.0 model have a `Label` attribute; if an object has a GUID it also has a label since both are defined in the `IfcRoot` object. In the specifications the `Label` is defined to be for 'Arbitrary use by applications', basically it is a string which use is not defined.

In early implementations while checking the resulting IFC file manually or with the help of simple browsers the `Label` provides a useful way to identify objects. While testing e.g. doors the `Label` of one door could be set to 'Check this door' and it would be easy to find the right door instance in the resulting IFC file.

Since we use the early implementations in demos it is very tempting to use the `Label` to identify objects, e.g. in the demos in Australia the `IfcOpeningElement` for doors always had the word `Door` in its `Label`. This is ok for demos as long as we keep the following rules in mind (this is a proposal)

1. If the label is used to identify objects in demos it is clearly communicated to others (like it happened in Australia)
2. In shipping products we avoid using the `Label` to identify objects. (We avoid writing code that relies on specific `Label` values or formats)
3. If we decide to use the `Label` for identifying objects the decision has to be well founded and documented. A need to use the `Label` for this purpose shows a flaw in the model and a better solution should be proposed for the next IFC release.

Another use for `Label` is to provide a more or less meaningful name for object instances, like walls, doors and windows. This is certainly a better way than to show the GUID to the end user. This is not an identification name, but rather a name that is shown to the end user. Since program logic does not use this name its use can be much less restricted.

In buildings only spaces, zones, systems, building storeys and groups usually have specific names, e.g. `Office 101`. Other building elements have a type (door) and maybe a project type (Door type A). These can be used to form the name of the object, e.g. `Door A#25`. We have to see if we can (or need to) reach some agreement on how to construct the `Label` of building elements in a way that provides a meaningful display value.