

Introduction

As a brief introduction, ANZRS is a content creation standard that was initially developed for shared and sold content for Australia and New Zealand. Since then it has been downloaded in more than 80 countries and has also been translated into a Dutch version (known as the Dutch Revit Standards), which has itself attracted interest throughout the EU. Over the last four years we have seen a noticeable increase of the adoption of ANZRS as the content creation template for shared/sold Revit content across Australia, New Zealand and some of Europe.

Whilst a great number of manufacturers have already invested in generating BIM content for their products (including in Revit format), many of these Revit families have unfortunately been created in a way that ultimately means they are of little use to end users. There are many reasons that a Revit family may be deemed to be unusable but the most common flaw is a lack of consistency, an inappropriate level of detail, prohibitively large file sizes and the use of poor family authoring methods which manufacturers and suppliers generally don't have the Revit skill set to evaluate.

ANZRS has created a content creation template that can be used to improve industry-wide consistency for shared and sold content. When building a Revit model it is highly desirable that most of the components in the Revit model follow a single construction standard and methodology where possible.

Reasons for this are:

- It allows project teams to interact with data from various manufacturers using the consistent data fields.
- Components made in a consistent fashion are easier to edit and manage on projects where they are being acquired from a variety of sources.
- Content that is well made is more predictable, more reliable and therefore more easily trusted to be accurate and is less likely to cause model file instability.
- Free content with appropriate detail levels can be used without requiring significant re-work. Manufacturer- or supplier-authored Revit families can often become too detailed for documentation and modelling purposes if the modelled object is created as an exact replica of the manufacturer's product (that is, millimetre-perfect in every dimension, every piece modelled separately, and every material created just right). Overly-detailed families usually require significant editing and can sometimes be replaced with content from another manufacturer that is simpler and graphically effective.

These are the reasons why content that has been evaluated to be ANZRS compliant is more likely to be used in projects than content that is not.

Challenges in generating Revit content

- The development of Revit content is a specialised field. Revit software is unlike other CAD software that manufacturers may previously have used to generate graphic content for their manufacturing and/or marketing purposes. Manufacturers' and suppliers' CAD content has traditionally been created with the sole purpose of communicating 2D and 3D geometry. The assessment of quality in this format is primarily based on how much detail (geometry) is shown; essentially, the more detail the better. BIM objects or components on the other hand, are assessed not only on geometric or graphic representation, but equally on the information that is embedded, how the models behave in a project environment and the degree to which the information can be utilised downstream.
- Presently, Revit content is considered by manufacturers and suppliers to be a 'sales and marketing tool' and is often generated at the request of Sales, Marketing and Business Development Managers in the hope that getting the content to users will translate directly to more sales. Often, the authoring of that Revit content for manufacturers and suppliers is outsourced.
- Generally when manufacturers contract a third party service provider they are able to set the brief; providing clear direction to that provider about their requirements. The manufacturer or supplier will then make their own assessment on the quality of the product or service they are provided. Revit components can look great to a manufacturer, earning their seal of approval, while being totally unusable by the end consumer that the content is intended for.
- In some cases, the manufacturer may not be consulted during the creation process or ever see the Revit families as they don't possess the required software to view the files.
- Even for companies who manufacture their own products and have substantial CAD experience, it's an altogether different skill to be able to assess Revit content. Many of the critical quality elements of BIM content are entirely unique to BIM platforms and have never been encountered previously by professionals with a 2D or 3D CAD background.

Revit Content Quality Assurance: Challenges

So how do manufacturers and suppliers ensure they end up with quality Revit content that their customers will want to use?

- Well, they could ask their clients to help conduct peer review.. If their clients are happy with their Revit content they are more likely to use it and the manufacturer will have essentially achieved their goal. Understanding who their clients are is also important – be they design consultants, contractors or subcontractors, or others. Each may have different needs from the other, and need to be considered in order to make the best, most appropriate content.

- Even amongst experienced Revit users from similar backgrounds or disciplines, there are numerous schools of thought on how Revit content should be created.
 - Opinions vary based on individual design practice workflows, user technical proficiencies, the role/discipline of the user, design methodologies and preferences, project collaboration requirements, BIM deliverables and the cross-platform interoperability requirements of the users surveyed, just to name a few. For manufacturers, digesting client feedback on Revit content is even more difficult than any other BIM challenge to date; such is the technical necessity (largely non-existent) to comprehend what is being communicated.
- Adding further complexity to the assessment of quality is the divide between what Revit users consider to be 'usable' content and what manufacturers and suppliers expect their products to look like. Manufacturers invest a lot of time and effort into the design of their products to ensure they present well aesthetically. Naturally they expect these characteristics, no matter how small, to translate into their digital equivalents.
 - Traditionally, manufacturers have also been advised by those specifying their products that 'the more information, the better' when it comes to producing their technical data. Naturally they expect this to apply similarly to their BIM components.

ANZRS as a quality assessment template

- ANZRS provides manufacturers with an unbiased reference tool that can be utilised to ensure the Revit content they're investing in can be used by their intended target market. Whilst there will always be differing preferences when it comes to the finer aspects of Revit family creation, ANZRS provides a framework of best practice principles for the creation of content that is accepted favourably by Revit users seeking manufacturer's content for their projects.
- For manufacturers who are outsourcing the creation of their Revit content, ANZRS can be used as the primary set of guidelines to which they want their content created. In doing so, the manufacturer can then measure the success of their creation project by how well their Revit families have been created according to ANZRS guidelines.
- It is important to note that ANZRS is not a content auditing body and provides no guarantees in regards to content made using this standard. It remains the ownership of content creation companies and manufacturer clients to check their own content.
- Manufacturers or suppliers who produce ANZRS-compliant Revit content reduce the chances of wasting resources on development of content that can't be utilised by their clients. They also increase the likelihood of gaining a greater overall return on their investment due to a higher rate of penetration of their digital content (and products) in projects.

ANZRS as a Marketing Tool

- To service the exponentially growing number of product specifiers using Revit and to capitalise from a marketing standpoint, a large number of manufacturers have in recent years begun generating Revit content for their products.
 - However, it's a widely held view that a lot of this content, if not the majority, is unusable in a project design setting because it fails to meet the requirements of most designers.
 - These failings are generally due to a lack of understanding on the part of the developer (either the manufacturer or contracted content developer) about exactly how Revit content should be developed if it's to be used in a project environment.
- Manufacturers and suppliers that are able to provide Revit content that conforms to ANZRS guidelines are able to provide a far superior service to product specifiers than their competitors who supply poorly-developed families. In the same way that manufacturers seek to promote the 'features and benefits' of their products, they should also seek to promote the features and benefits of their digital equivalents and the ways it contributes to customer workflows, owing to the fact that it complies with ANZRS guidelines.
- Manufacturers and suppliers that understand the basic principles of ANZRS and have content created to ANZRS guidelines would be well advised to use this reference in their marketing collateral. There is no question that the legacy that has been left by an industry filled with poorly-created content, is a somewhat jaded view of manufacturer's content by Revit users. Whilst appreciative of the manufacturer's efforts and intentions to offer a service, many Revit users are by default, apprehensive when faced with using content provided by others because of the uncertainty it presents and the time it takes to properly assess the quality before deeming it 'safe' to use in a project.
- Providing content to Revit users and advertising its creation in accordance with ANZRS guidelines will not only ensure that Revit users are more likely to view and employ the content, but actively seek more like it in the future. Becoming a trusted supplier of products, both for the real world and the digital, is good for business.

ANZRS as an Education Tool

- For manufacturers and suppliers who recognise the opportunity to become involved in the Revit community, ANZRS provides a great education tool on key family creation methods that relate to their specific product(s).
 - For manufacturers that take on the task of authoring Revit content internally, ANZRS provides a sound framework for family creation.
 - Likewise, for manufacturers who outsource their content creation, an understanding of ANZRS will allow them to have far greater input into the creation process for their products. Optimal BIM content is created when a thorough understanding of the technical facets and specification process associated with the product (possessed by the manufacturer) are appropriately and logically represented in the Revit family.
- Manufacturers and suppliers that understand component creation principles are able to provide valuable suggestions and advice to their content creators and achieve a superior outcome. Comprehending the ANZRS document in detail may well be far beyond the capabilities of some, however, understanding the most basic family creation concepts and key criteria that are addressed in ANZRS will provide manufacturers with a better understanding of what their clients require.
- In the same way that manufacturers are able to provide technical support to their clients on their products, manufacturers and suppliers will be engaged with increasing frequency to assist with technical support on how their Revit content can and should be incorporated in a project. Those possessing an understanding of how their Revit families are created and used in a project setting are able to provide their clients with a far greater service than those who simply outsource their Revit content and possess little knowledge of what they are providing.
- Sales representatives who are adept at conducting presentations based on their company's products may in time see opportunity and equal value to promote the 'features and benefits' of their Revit content and demonstrate the ways their families conform to ANZRS.

FAQ's

Why should Manufacturers care about Revit?

- For manufacturers that target project specification as an entry point to market sales, providing BIM content for their products will become an increasingly important part of their marketing playbook. Traditionally manufacturers have seen value in supplying product specifiers with AutoCAD 'blocks' or 3D models for their products. However, the industry shift to BIM software for designing projects now sees CAD content becoming increasingly redundant and necessitates that product data be supplied in a BIM format if it's to be of continued value to product specifiers.
- Revit is just one of many software programs used to drive BIM projects. However, the sheer volume of users and number of projects designed using Revit in the architecture, interior design and engineering sectors commands a convincing case to manufacturers and suppliers that creating Revit component libraries to reflect their products should be a priority item when considering how to invest in BIM.

How does Revit content help Manufacturers get specified?

- Providing Revit content alone is no guarantee that designers will specify a manufacturer's product. Ultimately, product specifiers will choose the product that best meets the needs of the project and this should always be the overriding priority.
- Having manufacturers and suppliers provide quality BIM content can however save product specifiers a substantial amount of time and effort during the design and documentation process. In the absence of such content, designers must generate Revit families themselves, which can be a time-consuming and costly exercise when one considers how many elements are required for multiple projects.
- Revit content that has been generated by, or on behalf of the product manufacturer or supplier provides a greater likelihood that the information within the model is accurate and contains all the critical data associated with the product. This is owing to the manufacturer's or supplier's intimate understanding of the product. This in turn provides greater assurance of accuracy to the product specifier than if they were to generate the model themselves, creating their own 'interpretation' by utilising alternative product data such as catalogues, photos, product data sheets and assorted CAD files.