

FIRE DETECTION PRODUCTS AUTODESK REVIT CONTENT USER GUIDE

To:
HOCHIKI

By:
Rob Clark
Consultant
Excitech Ltd.

23/02/2015
Version Number: 1.2



TABLE OF CONTENTS

1	VERSION CONTROL	3
2	THE PURPOSE OF THE DOCUMENT	3
3	INSTALLING INTO REVIT CONTENT	4
3.1	Unpacking the content	4
3.2	Loading the content	4
3.3	Placing the content	5
3.4	Viewing Materials and Signage	7
3.5	Base Types	8
4	PARAMETERS INCLUDED IN THE DATASET	9
4.1	Included Parameter Protocols	9
4.2	Utilised Revit Hard Coded Parameters	9
4.3	General Hochiki Parameters	9
4.4	Specification Parameters	9
4.5	COBie Parameters	10
4.6	Industry Foundation Class (IFC)	11
5	CONTACT INFORMATION	12

1 VERSION CONTROL

Version	Approved	Date	Approved	Date
0.1				
0.2		20/02/2015		
0.4		23/02/2015		
1.0	Rob Clark	24/02/2015		
1.1	Rob Clark	01/04/2015		
1.2	Rob Clark	12/05/2015		

2 THE PURPOSE OF THE DOCUMENT

The Revit content is intended to be used by experienced Autodesk Revit users. The purpose of this guide is to support the user in working with the content on new and existing projects. Each individual component has been packaged to include the following items:

- Product identification information
- Revit material asset data
- Revit MEP electrical connections were applicable
- COBie UK 2012 data
- IFC data
- Uniclass classification system data
- NBS specification data
- Appearance data including visualisation images were available.
- CAD appearance data

In addition to the above Excitech have supplied the following:

- This user guide
- An Autodesk Revit shared parameter file including all Hochiki Europe custom parameters

3 INSTALLING INTO REVIT CONTENT

To install either a single or multiple products into another Autodesk Revit project or template please follow these instructions.

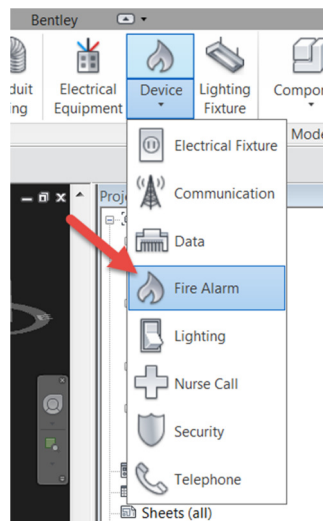
3.1 Unpacking the content

1. Use a program like Winzip or Alzip to open the downloaded .ZIP compressed file.
2. Extract (consult your software help files on how to extract files if you are unsure) the “Materials” folder to the following directory on your computer, C:\LocalRVT\Excitech\Materials. If you are unable to extract to this location, refer to “Viewing Materials and Signage” section of this document.
3. Extract the RFA file(s) to your content library. We suggest not extracting the files to the Metric Libraries that come with Revit as these can be manipulated during installs, repairs and service packing of your Revit software.

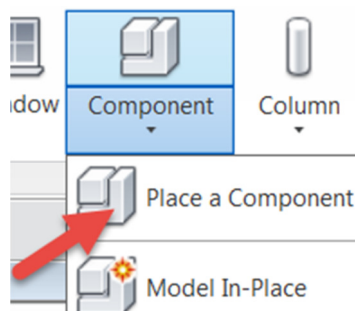
3.2 Loading the content

1. Open the Autodesk Revit project or template file that you wish to load the content into
2. Follow the appropriate instructions for your software

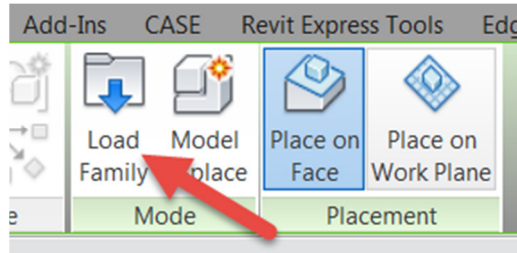
- a. Revit MEP or Revit. Go to the Systems tab > Device > Fire Alarm



- b. Revit Architecture or Structure. Go to the Home tab > Component > Place a Component



- On the Modify tab > Load Family

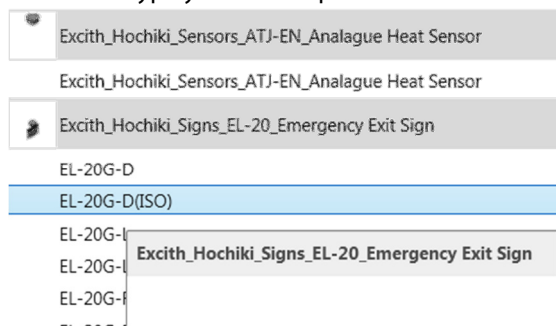


- Navigate to the folder you extracted your RFA into > Select the file > Open

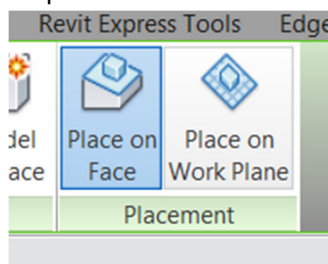
3.3 Placing the content

Hochiki content is typically face based content. This content can usually be placed on any horizontal or vertical face within a model. This avoids limitations around hosting types such as a ceiling or wall. The content has been created this way for the maximum flexibility, however because of this it may sometimes be necessary for the user to “flip” the content to the correct side of the face. For example, the products that can be ceiling based are set to face downward, if they are installed on a wall they will face inwards and will need to be flipped.

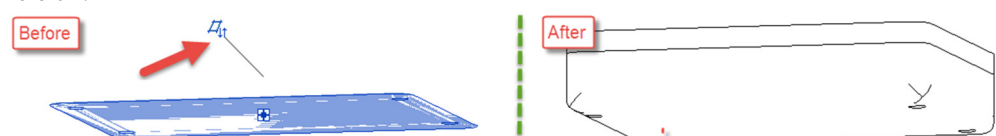
- Start the Component / Fire Device command if not already started (see Loading the Content)
- Select the Type you wish to place



- On the Modify tab > Select 'Place on Face' or 'Place on Workplane'. (The workplane option can be used for placement onto a named reference plane, level or grid datum.)



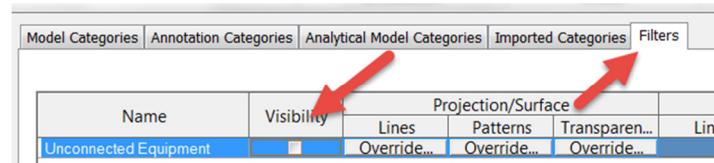
- Hover your mouse cursor over the surface and left click to place. If this does not work or does not appear as expected, check the following:
 - You have suitable surface like a ceiling present in the view. If not, use a reference plane with a name applied to host the content by selecting 'Place on Work Plane' in step 3.
 - The content is not flipped into the surface. If it is, use the “flip” to switch the side of the surface it is on:



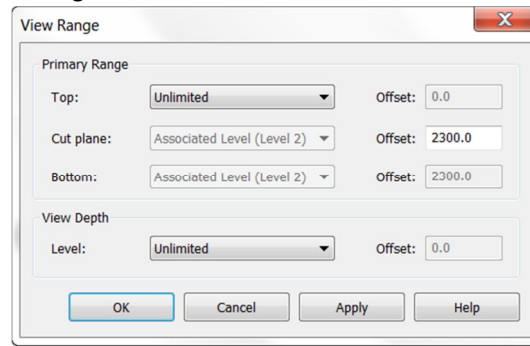
- c. That your host content is visually switched on in the selected view (Visual Graphics settings). Hochiki content is usually categorised as Fire Alarm Devices. Please ensure other categories that could be preventing the viewing of the content are switched off.



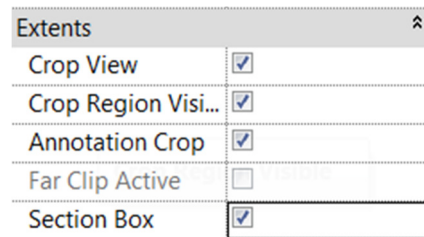
- d. That a visual filter is not affecting visibility



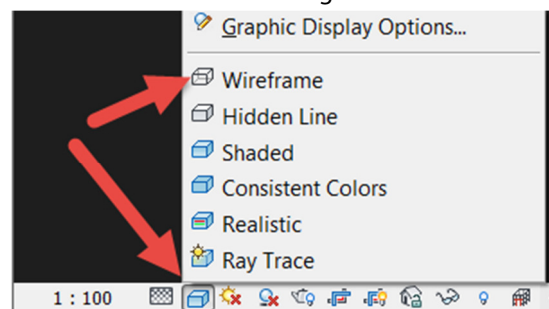
- e. If the view range is preventing visibility. In ceiling plans, the cut plane should be under the ceiling level.



- f. The Crop is not preventing the visibility. Also in a 3D view, check that the section box is activated. Note that section boxes can be hidden both by Element and Category



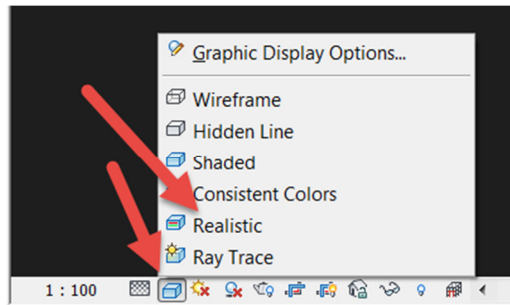
- g. There is not an obstacle in the way. Switch to Wireframe to remove all surfaces and ensure you can see the content. If you can, then you need to hide the object that is causing the obstruction before switching back to a Hidden Line, Shaded or Rendered View



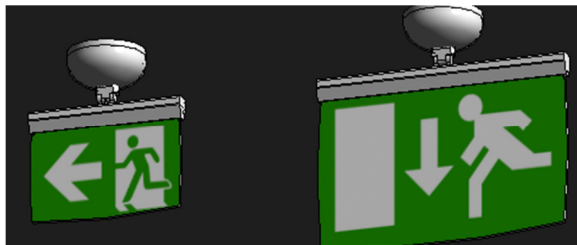
3.4 Viewing Materials and Signage

Some Hochiki content, like the EL-20 Addressable Exit Sign, have custom materials embedded to ensure the correct representation. To view these materials, follow the below steps:

1. Ensure you have extracted the materials as instructed in "Unpacking the Content". If you have not done this, go to these instructions, follow these and then restart the Revit software.
2. Switch to the Realistic Mode to see the materials




3. Custom materials should now be visible



4. If custom materials are still not visible then ensure you have extracted the materials as instructed in "Unpacking the Content" and then restart the software. If you cannot extract the materials go to **C:\LocalRVT\Excitech\Materials**, go to Manage > Materials

5. Find the Hochiki materials and double click

Image A1 - Non ISO Down	Plastic
Image A2 - Non ISO Up	Plastic
Image B1 - Non ISO LEFT	Plastic
Image B2 - Non ISO RIGHT	Plastic

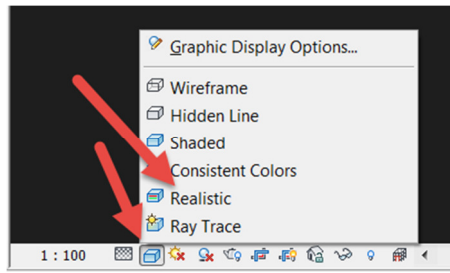
6. Go to the Appearance Asset and select Expand the "Generic" section, you will notice a . Click on this:

7. Navigate to the folder you extracted the materials to and click the image and click Open

Name	Date	Type
a1.png	05/12/2014 13:17	PNG image
a2.png	05/12/2014 13:17	PNG image

8. Repeat this procedure for all Hochiki materials

- Switch to the Realistic Mode to see the materials

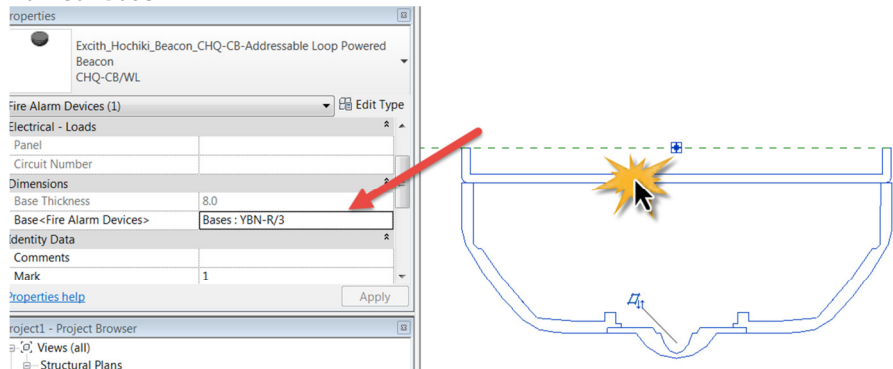


Custom materials should now be visible.

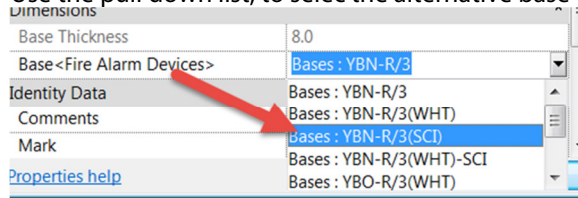
3.5 Base Types

Some Hochiki products can be fitted to different base types. As a result, the ability to switch bases is built into the relevant content. To change the base:

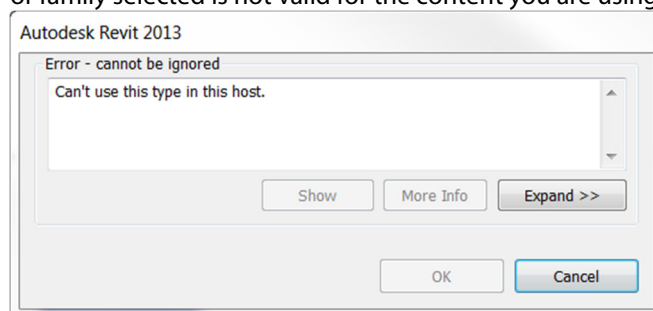
- Select the Hochiki components. If it has an interchangeable base, there will be a instance parameter named "Base"



- Use the pull down list, to select the alternative base



- The base should change. If you receive the message "Can't use this type in this host", this is as the base or family selected is not valid for the content you are using and you should select another base type:



4 PARAMETERS INCLUDED IN THE DATASET

4.1 Included Parameter Protocols

The Hochiki Europe material parameter systems include the following protocols:

1. **COBie UK 2012 FM Export**
2. **National Building Specification (NBS)**
3. **Uniclass 2**
4. **IFC**

Further information on each of these protocols can be found in the “Parameters Included In This Dataset” section.

Hard coded parameters are built into the Autodesk Revit database and are present (by default) in all RVT files. Shared parameters are created by the user and ensure data is stored in the same location within the database for many items of the same type; even if installed from many file locations. All Shared Parameters are contained in the included Hochiki Shared Parameter File.

4.2 Utilised Revit Hard Coded Parameters

The following Autodesk Revit hard coded parameters have been utilised:

Parameter Name	Description	Revit Units
Comments	General comments on the material	Text
Description	Product marketing description	Text
Manufacturer	Listed as Hochiki Europe to assist with specification	Text
Model	Hochiki Europe product codes	Text
Name (Type)	Full materials name	Text
Type (Material)	Autodesk material designations, i.e. Plastic	Text
URL	Website URL listing further information on the product	URL

4.3 General Hochiki Parameters

The following general reference parameters are utilised:

Parameter Name	Description	Revit Units
TradeCost	Contains the Hochiki trade cost for the unit. This is not included in publically available content but can be requested.	Currency
PreventativeMaintenanceRegime	Contains the Hochiki preventative maintenance regime. This is not included in publically available content but can be requested.	Text
HochikiWebsite	Contains the website address	URL
EnviromentalStatement	Contains a link to the Hochiki ISO environmental statement	Text
CleaningInstruction	Contains the cleaning instructions for the product	Text

4.4 Specification Parameters

For further information on NBS Product Specification, please visit -<http://www.thenbs.com/corporate/about.asp>

[The following parameters follow the guidance as issued in the NBS BIM Object Standard v1.1](#)

For further information on Uniclass 2, please visit the HM Government's BIM Task Group website - <http://www.bimtaskgroup.org/uniclass2/>

Parameter Name	Description	Revit Units
Author	Name of the person or organisation that authored the object (in this case Excitech Ltd)	Text
BIMObjectName	Alphanumeric text name that identifies and represents the BIM object within the BIM platform	Text
ProductInformation	URL to further product information available on the Hochiki website	URL
ManufacturerURL	Hochiki URL	URL
NBS Description	Alphanumeric value of the appropriate NBS clause title from http://www.nationalbimlibrary.com/api/	Text
NBSReference	Alphanumeric value of the appropriate NBS clause reference from http://www.nationalbimlibrary.com/api/	Text
Revision	Current revision of the content. Filled to whole values, i.e. 1, 2, 3	Number
Uniclass2	Value of the appropriate Uniclass2 classification code and description. Uniclass can be found at http://www.cpic.org.uk/uniclass2/	Text
Uniclass1	Value of the appropriate Uniclass1.4 classification code and description. Uniclass can be found at http://www.cpic.org.uk/uniclass1/	Text
Version	Property completed with a numerical value, stated as a whole number, representing the sequence of the object publication	Text

4.5 COBie Parameters

COBie is the information exchange specification specified by a number of clients, including those utilising the processes included in BSi PAS1192-2/3/4. It is part of the Government Construction Strategy published May 2011 which calls for implementation in 2016.

For further information on COBie and for an example COBie spreadsheet, please visit the HM Government BIM Task Groups website - <http://www.bimtaskgroup.org/cobie-uk-2012/>. The buildingSMARTalliance also has information including instructional videos online at http://www.nibs.org/?page=bsa_cobie

The following parameters follow the guidance as issued in the NBS BIM Object Standard v1.1

The following COBie Parameters are utilised:

Parameter Name	Description	Revit Units
Name	Name of the Hochiki product	Text
Category	Products are categorised using the Uniclass 2 classification system	Text
Description	A condensed version of our product description Review product specification data for more detail	Text
AssetType	The COBie approved values are fixed or moveable Hochiki content is defined as moveable, however you can change this to fixed for a permanent installation	Text
Manufacturer	Set to our company name	Text
Model Number	Product model number	Text
WarrantyGuarantorParts	Parts are supplied by Hochiki Europe. Email info@hochikieurope.com for further information	Text
WarrantyDurationParts	The duration in years of a parts warranty	Number

WarrantyGuarantorLabor	Email info@hochikieurope.com for further information	Text
WarrantyDurationLabor	Duration set in years	Number
WarrantyDurationUnit	The unit value of our warranty durations is years	Text
ReplacementCost	Hochiki Europe do not supply cost data in our publically available content. Please contact us if you require this information in your models	Text
ExpectedLife	Hochiki Europe do not supply expected life data in our publically available content. Please contact us if you require this information in your models	Text
DurationUnit	All durations are shown in years	Text
WarrantyDescription	Check batch code on product label for manufacturers date code and then please contact us for more information on the warranty	Text
NominalLength	Filled out in millimetres if available	Length
NominalWidth	Filled out in millimetres if available	Length
NominalHeight	Filled out in millimetres if available	Length
ModelReference	Name of the Hochiki product	Text
Shape	Description of product shape if available	Text
Size	Overall size in millimetres if available	Text
Colour	Description of general product colour if available	Text
Finish	Description of finishes if available	Text
Grade	Description of standard grading if available	Text
Material	Description of materials if available	Text
Constituents	Description of parts within the products. Contact us if you require this information	Text
Features	Description of any product features if available	Text
AccessibilityPerformance	Description of any known accessibility issues if available	Text
SustainabilityPerformance	Hochiki Europe's environmental statement with web link	Text
CodePerformance	Description of any relevant standards or codes if available	Text

The following properties are also included as instance parameters and would be completed by the asset management team for each individual installation:

- 'SerialNumber' property completed with an alphanumeric default value 'n/a'
- 'InstallationDate' property completed with the default value '1900-12-31T23:59:59'
- 'WarrantyStartDate' property completed with the default value '1900-12-31T23:59:59'
- 'TagNumber' property completed with an alphanumeric default value 'n/a'
- 'Barcode' property completed with an alphanumeric default value 'n/a'
- 'AssetIdentifier' property completed with an alphanumeric default value 'n/a'

4.6 Industry Foundation Class (IFC)

The IFC file type is a platform neutral, open file format specification that is not controlled by a single vendor or group of vendors. It is an object-based file format with a data model developed by buildingSMART to facilitate interoperability in the architecture, engineering and construction (AEC) industry. It is a commonly used collaboration format in Building information modelling (BIM) based projects. The IFC model specification is open and available. In theory, it should enable you to use data in other BIM packages such as Graphisoft ArchiCAD.

Autodesk Revit allows for IFC export using an in-built exporter. IFC is a rapidly developing schema and several new releases of the IFC exporter are often developed within a single Revit software release cycle. If you are required to export to IFC we recommend you update the IFC exporter included in Revit to the latest addition. These tools can be found on the Autodesk Exchange Store -

<http://apps.exchange.autodesk.com/RVT/en/Home/Index> and also <http://sourceforge.net/projects/ifcexporter/>

Hochiki Content is supplied with parameters which are aligned to the IFC Property Sets (PSETS) required within the schema. These differ between types of elements, so a light fixture is required to have different properties in IFC schema to a plug socket. Below we list the common property sets, which includes the IFCExportAs, which is the IFC category. A full description of PSETS go to, <http://www.buildingsmart-tech.org/ifc/IFC2x3/TC1/html/index.htm> and then > Property Sets > PSD Alphabetical Index > then click on the individual PSET. To understand what PSETS are included in Hochiki content, review the groups enclosed Hochiki Shared Parameter file.

Please note that Hochiki Europe, the content hosts nor authors are able to offer further advice or support on using this content in software other than Autodesk Revit.

Parameter Name	Description	Revit Units
IfcTypeObject	Specified within Hochiki content as IfcBuildingElementProxy due to no specific schema existing within IFC for fire protection equipment. IFC is a constantly evolving format, so this may be updated in later revisions	Text
IfcExportType	IfcExportType to define the PredefinedType of the specific IFC type	Text
IfcExportAs	IfcExportAs for the specific IFC Entity or type to be assigned to	Text

5 CONTACT INFORMATION

We would welcome your requests for further information and general feedback on these products:

Please contact

Paul Adams
Deputy Marketing Manager
Hochiki Europe (UK) Ltd
+44 (0) 1634 266 568
padams@hochikieurope.com

Or alternatively contact us via our website at <http://www.hochikieurope.com/contact.php>