

Test cases

ID	Description of test case	Role	Start prerequisites	Dependencies CoClass API	Dependencies other parts	Requirements mapping	Input	Output/result	Method of validation	Validation criteria	Comments
TC-01	As a user I create a structure in CoClass Studio, containing CoClass Objects, Properties and Activities, with values. As a user I share this structure with some requirements	Developer, planner	The developer and planner needs access to CoClass Studio	None	None	R1, F1, F99	Structure to build	Structure is accessible by CoClass Studio by the user that is shared to	Visual inspection	Is the structure accessible?	
TC-02	As a planner, I download a structure that is shared to me on CoClass Studio	Planner	Structure available in CoClass Studio	None	None	F2, F12	Build structure	Structure available in machine readable format (json, xml)	Visual inspection	Is the structure possible to download?	
TC-03	As a planner, when using a third party tool, connect to CoClass and create a structure	Planner	Structure available in CoClass Studio	None	None	F1, F12, F68, F97	Build structure	Structure accessed in third party application	Visual inspection	Is the structure accessible in third party application?	
TC-04	Create a structure of CoClass for "New Year"	CoClass Customer "New Year" authorized to Govern Structure	A structure of CoClass governed by CoClass customer "New Year" is created	Structure CRUD Authorization	None	F2, F12, F68	Information about how "New Year" intend to use CoClass for their asset	A structure with specified name and content can be created and stored at SBT	Verify in CoClass API	A structure with specified name and content can be created and stored at SBT	
TC-05	Publish a structure of CoClass	CoClass Customer authorized to Govern Structure	A structure of CoClass governed by CoClass customer "New Year" is published	Structure CRUD Authorization	None	F2, F12, F93	Information about how "New Year" intend to use CoClass for their asset and who they want to publish the structure to	A valid structure is available to all CoClass users authorized for a given CRUD level	Verify in CoClass API	The published structure is available with its content for selected CoClass users	
TC-06	Update a structure of CoClass for "New Year"	CoClass Customer authorized to Govern Structure	A CoClass structure in the CoClass Desktop "CoClass-cache" (from previous online work session)	Structure CRUD Structure versioning Authorization	None	F1, F12, F68	Information about versioning policy	New and old version is not mixed up	Verify in CoClass API	A new version of the structure exists in parallel with the old version	Probably not supported in the API under this project's scheduled changes. Workaround is to create a new structure with a name that status that this is version 2.
TC-07	Publish updated new version Structure of CoClass	CoClass Customer authorized to Govern Structure	A structure of CoClass governed by CoClass customer "New Year" is published	Structure CRUD Authorization	None	F10, F12, F93, F93	Information about versioning policy	New and old version is available for all CoClass users authorized for a given CRUD level	Verify in CoClass API	The new published structure version is available with its content for selected CoClass users in parallel with the old version	
TC-08	Classify an asset according a CoClass Structure in Online mode	CoClass Customer authorized to need a given Structure	A structure of CoClass governed by CoClass customer "New Year" is published	Structure Read Authorization	None	F12, F12, F92	Information about how a given asset shall be classified according "New Year's" CoClass Structure	Classified asset according selected Structure	Visual inspection	Classification can be performed without anything in the UI	
TC-09	Classify an asset according a CoClass Structure in Offline mode	CoClass Customer authorized to need a given Structure	A structure of CoClass governed by CoClass customer "New Year" is published. A CoClass structure in the CoClass Desktop "CoClass-cache" (from previous online work session)	Structure Cache	None	F12, F12, F92	Information about how a given asset shall be classified according "New Year's" CoClass Structure	Classified asset according selected Structure	Visual inspection	Classification can be performed without internet connection	
TC-10	Clearly an asset using IFC in Quadri Desktop where classes can be selected from lists that follows the culture used by the application	CoClass Customer authorized to need a given Structure	A structure of CoClass governed by CoClass customer "New Year" is published	Complete information (description etc.) for given classes	None	F12, F12, F93, F94	Information about correct names, description etc. for classes in different languages	Classified asset according selected Structure and culture	Visual inspection	Classification can be performed in Norwegian, English and Swedish	
TC-11	Visualize "New Year" Structure for CoClass classification as a tree structure in Quadri Desktop and Quadri Web	CoClass Customer authorized to need a given Structure	A structure of CoClass governed by CoClass customer "New Year" is published. A report configuration for the Quadri UI is available	None	None	F55, F1, F55, F79, F79, F79	MenuMap for given classification	Visual tree that can be compared with content in MenuMap	Visual inspection	Classification can be performed in a consistent UI by users who are familiar with MenuMaps from SBT	Does the industry have guidelines / analyses to agree on a standardised perception (names, colors etc) for visualizations?
TC-12	Produce asset assessment reports that follows the structure of selected CoClass Structure	CoClass customer	A structure of CoClass governed by CoClass customer "New Year" is published. A report configuration for the Quadri UI is available	None	None	F68	MenuMap for given classification	Report that can be compared with content in MenuMap	Visual inspection	Users that look at reports should be able to see that the content reflects the structure in MenuMaps from SBT	
TC-13	The user reads a code. According to requirement text: An extra table for a relationship functional system	Designer	We do not take into account inproceeds for the following test case	None	None	To be mapped	CoClass API	None	None	None	Start of scenario
TC-14	Log on to Buggilign CoClass via Saver. Authenticates the user at the user interface	Designer	Service account or individual login? Needs to be defined by Buggilign	Our interface will depend on this. For this we will assume that we use service account as defined in CoClass API	None	To be mapped	login information and Authorization keys from Buggilign	Saver and the user is able to login in Buggilign CoClass via Saver	Visual inspection	Successful login confirmation	
TC-15	Query Buggilign CoClass through API. Saver data is stored per project. Saver will access Buggilign CoClass and query through the API when CoClass codes are created	Designer	Buggilign CoClass API	Saver is able to retrieve the parent child structure through the API	None	To be mapped	User input and interaction	User selected Tables and codes are in Buggilign CoClass. Saver is able to retrieve the parent child structure through the API	Visual confirmation in Saver UI	API tables and codes in Buggilign CoClass are enabled to be queried in Saver UI	
TC-16	Check a list of tables that are available at Buggilign CoClass. User can choose what code/table user wants to download	Designer	Buggilign CoClass API	Saver is able to select and download structure and codes through the API	None	To be mapped	User selection	User selected Tables and codes are in Buggilign CoClass. Saver is able to select and download structure and codes through the API	Visual inspection	Selected codes/tables are confirmed downloaded in Saver UI	
TC-17	The system Retrieves data with version from CoClass API to Saver	System	Buggilign CoClass API	CoClass API will provide version	None	To be mapped	User selection of relevant CoClass version for current project	Saver will have relevant version	Visual inspection	Version number in Saver UI	Version number in Saver UI
TC-18	Tables are project adapted in Saver. Irrelevant non-relevant codes (BIM codes) but they are not active in the project	Designer	CoClass codes downloaded to Saver	no	None	To be mapped	User selection	Codes can be hidden/faded in Saver UI	Confirmation in GUI	Confirmed in GUI	
TC-19	Code is downloading specific assets. This could be CAD layer or a property sets in civil or Attribute property on CAD-block	Designer	CAD file with CAD-block with attribute definition for CoClass. CAD file is scanned by IFC into IFC data	no	None	To be mapped	CAD file with CAD-block with attribute definition for CoClass	Code confirmation in IFC that codes are confirmed as OK in Saver	Confirmation in GUI	Confirmed in GUI	
TC-20	Buggilign has published a new version of CoClass	Designer	Buggilign CoClass API and versioning	Different versions with a difference needs to be retrieved from CoClass API	None	To be mapped	Deleting codes in table with a different version than selected in the CoClass API	The project CoClass version can be updated in a controlled way	Change between versions can be tested, confirmed in the GUI. New codes can be selected and imported	Confirmed in GUI	
TC-21	The user loads the same tables as in test case F1	Designer	Buggilign CoClass API and versioning	Different versions with a difference needs to be retrieved from CoClass API	None	To be mapped	Deleting codes in table with a different version than selected in the CoClass API	The project CoClass version can be updated in a controlled way	Change between versions can be tested	Confirmed in GUI	
TC-22	Saver answer with what is the difference (visible in the GUI)	System	Buggilign CoClass API and versioning	Different versions with a difference needs to be retrieved from CoClass API	None	To be mapped	Deleting codes in table with a different version than selected in the CoClass API	The project CoClass version can be updated in a controlled way	Change between versions can be confirmed	Confirmed in GUI	
TC-23	Users can then accept the new version	Designer	Buggilign CoClass API and versioning	Different versions with a difference needs to be retrieved from CoClass API	None	To be mapped	Deleting codes in table with a different version than selected in the CoClass API	The project CoClass version can be updated in a controlled way	New version has replaced old version Saver	Confirmed in GUI	
TC-24	Downloading of correct CoClass version	See owner	Downloading of correct CoClass version	None	None	F1	CoClass naming API	File received	On screen	Presented	
TC-25	Establishing roles and shape management	Customer	None	None	None	F90, F92, F94	Established	File received	On screen	Presented	
TC-26	Uploading of IFC. Based on Architect drawings from "Customer"	Architect, planner, entrepreneur and customer	Information available in customer database. Import of drawings, based on IFC data	None	None	F1, F63	IFC, Revit or Archival files	File received	On screen	Presented	
TC-27	Information handling of existing building "As is"	Architect	None	None	None	F1, F12, F13, F28, F12, F28, F43, F44, F45, F46, F47, F52, F52, F78, F89	None	Drawing updated	On screen	Presented	
TC-28	Adding new objects related to wall, door, floor and vent including their property sets and values	Planner	None	None	None	F1, F13, F62, F85, F86, F86	None	New objects added into properties and values	On screen	Presented	
TC-29	Breaking and rejoining objects into properties and their values to from elements (doors/windows) and their applicable all relevant objects	Planner/entrepreneur	None	None	None	F1, F13, F62, F85, F86, F86	None	New objects added into properties and values	On screen	Presented	
TC-30	Linking new objects to their parents that updating systems for the elevation (4-2) and vent (1-2) structures	Planner	None	None	None	F1, F13, F62, F85, F86, F86	None	Updated placement structure in place	On screen	Presented	
TC-31	Linking the new objects to their parents that updating systems for the elevation (4-2) and vent (1-2) structures	Planner	None	None	None	F10, F26, F30, F33, F53, F74, F79, F84, F86, F90	None	Updated system structures in place	On screen	Presented	
TC-32	Linking a commodity to each object updating each object with cost and time to install	Entrepreneur	None	None	None	F49, F85	None	Commodities, price and time (install) updated	On screen	Presented	
TC-33	Linking an individual to an object when appropriate. Adding serial number and materials documents	Entrepreneur	None	None	None	F76	None	Serial number and material documents linked to commodity and object	On screen	Presented	
TC-34	Linking energy, documents and software files to objects	Architect, planner and entrepreneur	None	None	None	F88, F90, F95	None	Files added	On screen	Presented	
TC-35	Retrieval of updated information in class management system	Planner/Entrepreneur/customer	None	None	None	F50, F73, F74	Approved	Files added	On screen	Presented	
TC-36	Functional control of all classes (old and new) related to the same alarm loop. Adding inspection protocol to the program	Inspector	None	None	None	F68	None	All classes concerned shown on drawing and in structure	On screen	Presented	
TC-37	Updating of parameter settings in vent system	Installer	None	None	None	F72	None	Parameter setting updated	On screen	Presented	
TC-38	Comparison between Version 0 and 1. Differences identified and compared with contract	Entrepreneur/ Customer	None	None	None	F73	None	Differences between version 0 and 1 presented	On screen	Presented	
TC-39	Differences in cost and installation time between versions identified	Entrepreneur/ Customer	None	None	None	F73	None	Differences between version 0 and 1 presented	On screen	Presented	
TC-40	Project approved and closed	Customer	None	None	None	F6, F10, F14, F18, F20, F21, F31, F35, F35	None	None	On screen	Presented	
TC-41	General requirements in requirements list	Customer	None	None	None	F6, F10, F14, F18, F20, F21, F31, F35, F35	None	None	On screen	Presented	
TC-42	Upload a Revit file in FME Server and get suggestions of coClass codes for each object in the file	Owner of a Revit file	A Revit file without CoClass codes	Possibility to make a GET method with a CoClass definition and get an answer with possible codes	None	F18, F19, F21	Revit file	List of suggested coClass codes	Visual inspection	FME returns a file with coClass codes for 75% of the objects	
TC-43	Upload tabular data in FME Server and get suggestions of coClass codes for each object in the file	Owner of a file with tabular data	A tabular file (e.g. excel, CSV) without CoClass codes	Possibility to make a GET method with a CoClass definition and get an answer with possible codes	None	F18, F19, F21	File of tabular data	List of suggested coClass codes	Visual inspection	FME returns a file with coClass codes for 75% of the objects	
TC-44	When missing information in file storage using I2 the software needs a I2 class to verify classification against. When the API calls for an class to verify against the API returns a list with classes formatted as an I2 class	Class verification	Already classified information	Deliver a classification based on CoClass	None	F24	Class to verify	I2 class	I2 validation of class	Validation ok or rejected	
TC-45	Classify asset (wall) in a BIM model with the API	The Revit user	Object (classified)	Get back a classification to the model	None	F24	Object to classify	Correct Classification mark (returning based on CoClass)	Mapping succeeds when Classification mark	Mapping succeeds when Classification mark	
TC-46	Classify asset (wall) in a BIM model with the API	CAD user	Object (classified)	Get back a classification to the model	None	F24	Object to classify	Correct Classification mark (returning based on CoClass)	Mapping succeeds when Classification mark	Mapping succeeds when Classification mark	
TC-47	Calculate LCA in an object in Revit (DWG) based on its classification in CoClass	The Revit User	An object is classified with several CoClass codes that an Reference mark can set	API checks classes an sets a "Reference Mark"	SBEResourcehub uses reference mark to map to against a HUB resource. Another API uses the Resource HUB resource to map to correct LCA data and then calculate the object to get the correct GWP value	F84	CoClass classification done in object	Correct Classification mark (returning based on CoClass)	Mapping succeeds when Classification mark	Correct validation	Object is correct classified in coClass with classes from the needed lists