User manual
Controls Management

CERRIX B.V.
Version 6.1
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Confidential

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1. Introduction

1.1 Controls Management

The management board of an organization has certain goals which need to be realized. The risks which can have negative or positive influence in achieving these goals must be identified and documented. After which these risks must be partly, or fully mitigated by internal controls. The way in which risks are identified, controlled and tested are part of the monitoring control process. The goal of the monitoring control process is to judge whether the controls are accurately described and documented and thereby providing a realistic view of how these controls work. The documented and implemented controls are judged on documentation, implementation and effectiveness.

1.2 Control testing

As part of the monitoring process, controls need to be tested. This testing can be done by internal and/or external reviewers as well as by the business lines themselves. CERRIX provides control testing functionality for the business lines so that 2nd line can check whether this is done in a sufficient way.

1.3 Controls Export Test plan

CERRIX has developed functionality to export data from the controls module. This functionality contains an export of the registration and testing of the controls.

1.4 Copy Test plan

When using the Advanced testing module for effectiveness testing, CERRIX has implemented a functionality to copy test plans.

2. User roles

There are ten different types of users in the Control module, displayed by user roles. Each user role has specific rights for certain parts of the module, which are defined beforehand. These user roles must be allocated to a user. To give a user more rights, multiple user roles can be selected. Roles that can be selected are: Unrestricted Administrator, Restricted Administrator, Unrestricted Writer, Restricted Writer, Unrestricted Viewer, Restricted Viewer, Evidence Uploader, Tester, Reviewer, Test plan Creator. An overview of the roles and the corresponding rights is given in table 1.

Control Roles	Control Unrestricted Administrator	Control Restricted Administrator	Control Unrestricted Writer	Control Restricted Writer	Control Unrestricted Viewer	Control Restricted Viewer	Control Evidence Uploader	Control Tester	Control Reviewer	Control Testplan Creator
Search for Controls	✓	✓	✓	✓	✓	✓				
Audit										
Make Controls a 'Key control'	✓	✓	✓	✓						
Make Controls 'In place'	✓	✓	✓	✓						
Make Control 'Requires Monitoring'	✓	✓	✓	✓						
Add evidence to D&I and Effectiveness testplans	✓	✓					✓			
Add test results to D&I and Effectiveness testplans	✓	✓						✓		
Add review scores to D&I and Effectiveness testplans	✓	✓							✓	
Can be selected as auditor in MC MoIs	✓	✓	✓	✓						
Link existing IM MoIs	✓	✓	✓	✓						
Access to Navigator - Framework Dimensions	✓	✓	✓	✓						
Maturity score the Framework Dimensions	✓									
Access to Navigator - Business Dimensions	✓	✓	✓	✓						
Operationeel										
Create D&I and Effectiveness testplans	✓	✓								✓
Create new Control MoI within a control	✓	✓	✓	✓				✓	✓	
Create new Control	✓	✓	✓	✓						
Control owner	✓	✓	✓	✓						
Create Control reports	✓	✓	✓	✓	✓	✓				
Create Control standing data reports (Catalogues)	✓									
Create exports from the workspace	✓	✓	✓	✓	✓	✓				
Link risks to control*	✓	✓	✓	✓						
Settings										
Maintain Control Standing data	✓									
Access Deleted items	✓	✓								
Set up Workflow messages for testing	✓									
Set up Early warning messages for testing	✓									

✓	Only when assigned	* In combination with Risk Administrator or Risk Writer role
✓	Own organization	
✓	Every organization	

Table 1: Control user role and rights

2.1 Control Unrestricted Administrator

The Unrestricted Administrator is the user who will set up and keep the complete overview of the Controls module. Therefore, this role has rights to all functionality in this module. With this role it is possible to see all the controls in the module and edit them. Furthermore, this user can edit the standing data for the Control module and can be selected in every role in testing.

2.2 Control Restricted Administrator

The Restricted Administrator is also able to set up and keep the overview of the controls. This role also has rights to all functionalities in the Control module. However, the Restricted Administrator is limited to controls of his own organization. Also, the Restricted Administrator can be selected in every role in testing within his own organization.

2.3 Control Unrestricted Writer

The Unrestricted Writer has all the write rights for the Control module. He can create and delete controls for all organizations. However, he doesn’t have any rights in testing.

2.4 Control Restricted Writer

The Restricted Writer has the same rights as the Unrestricted Writer but, again, is limited to controls from his own organization. He also doesn’t have any rights in testing.

2.5 Control Unrestricted Viewer

The Unrestricted Viewer can open all controls in a read-only mode.

2.6 Control Restricted Viewer

The Restricted Viewer can open all the controls from his own organization in a read-only mode.

2.7 Control Evidence Uploader

The Evidence Uploader can be selected in test plans for both Documentation & Implementation and Effectiveness testing.

2.8 Control Tester

The Tester can be selected as Tester in both Documentation & Implementation and Effectiveness testing.

2.9 Control Reviewer

The Reviewer can be selected as Reviewer in Controls Effectiveness testing.

2.10 Test plan Creator

The Test plan Creator can maintain test plans for Documentation & Implementation and Effectiveness testing. The user can also maintain Documentation & Implementation and Effectiveness testing catalogues.

3. Adding a control

Adding a control consists of three steps:

1) Defining the standing data;
2) Indicate that a control must be monitored;
3) Filling in details of the control, such as setting up control details and tests for documentation & implementation and effectiveness.

These steps will be discussed in the following paragraphs.

For defining the standing data, a Control Unrestricted Administrator role is necessary. For adding a control, a Control (Un)Restricted Administrator or Control (Un)Restricted Writer role is necessary. For adding evidence to tests, a Control Evidence Uploader role or Control Administrator role is necessary. For assessing the test's evidence, a Control Tester or Control Administrator role is necessary.

3.1 Defining the standing data

In order to add controls, the standing data must be defined first. This standing data is used when filling in the details of the control. For controls standing data must be filled in:

- Aspect IC
- Control Catalogue
- Control Frequency
- Control Source
- Function
- Type of Control

Monitoring Controls

- Documentation & Implementation Catalogue
- Effectiveness catalogue
- Quality aspect
- Linked standards
- Score

To define the standing data for the control module, go to *Admin > Standing data* (see figure 1).

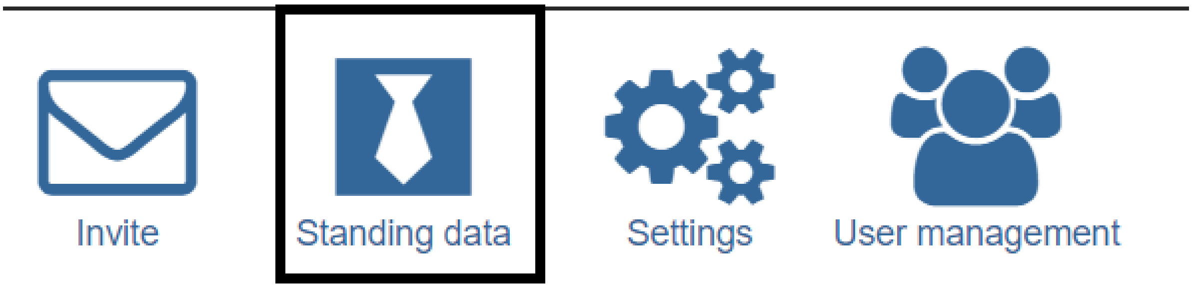


Figure 1: Standing data Controls

On the next page all options for controls standing data are listed (see figure 2).

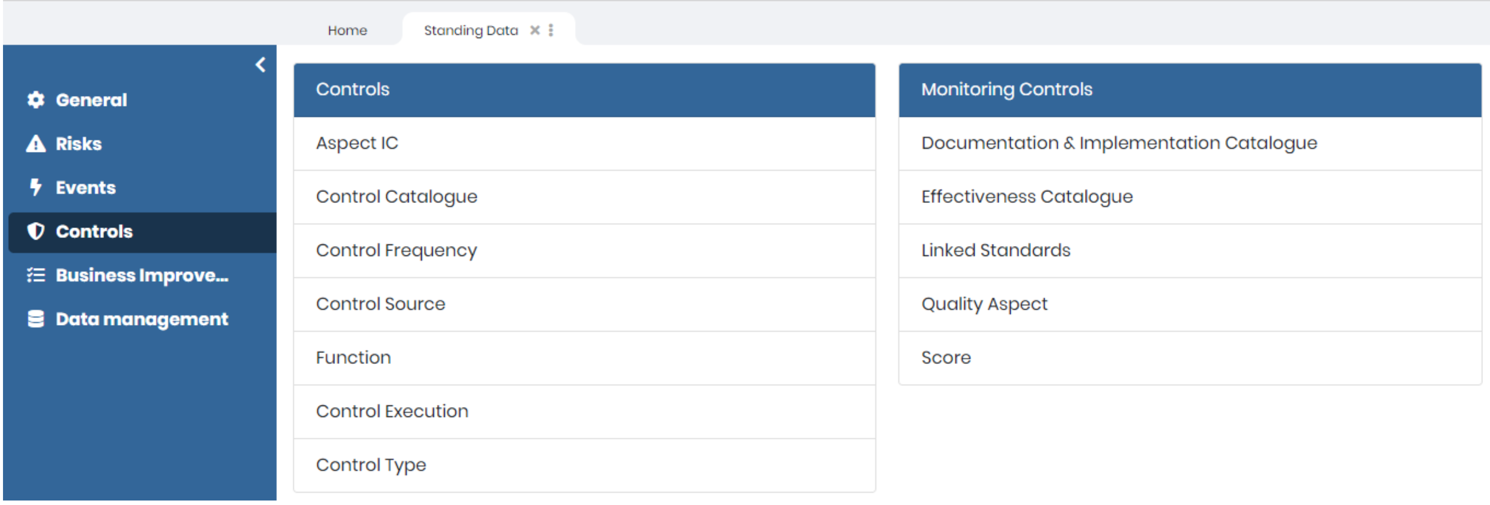


Figure 2: Control & Monitoring Controls

3.2 Creating a Control

After the standing data is defined, the Control can be added. This can be done in two ways:

1. Via the *Control workspace,* clicking on the "**Add Control**"-button (see "A" figure 3).

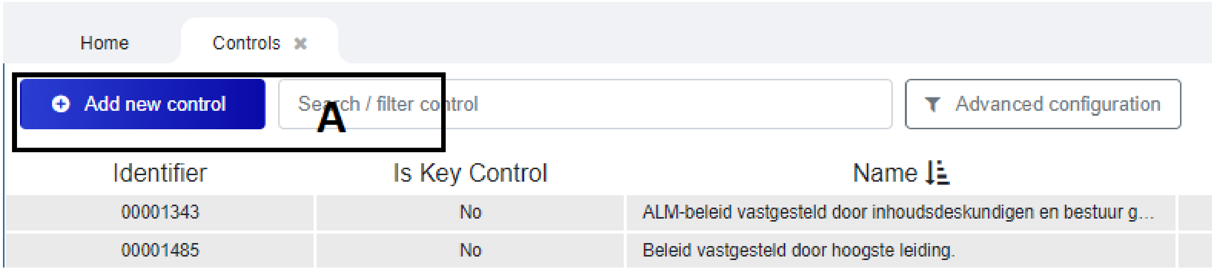


Figure 3: Add new Control

This button will lead to the screen displayed in figure 4.

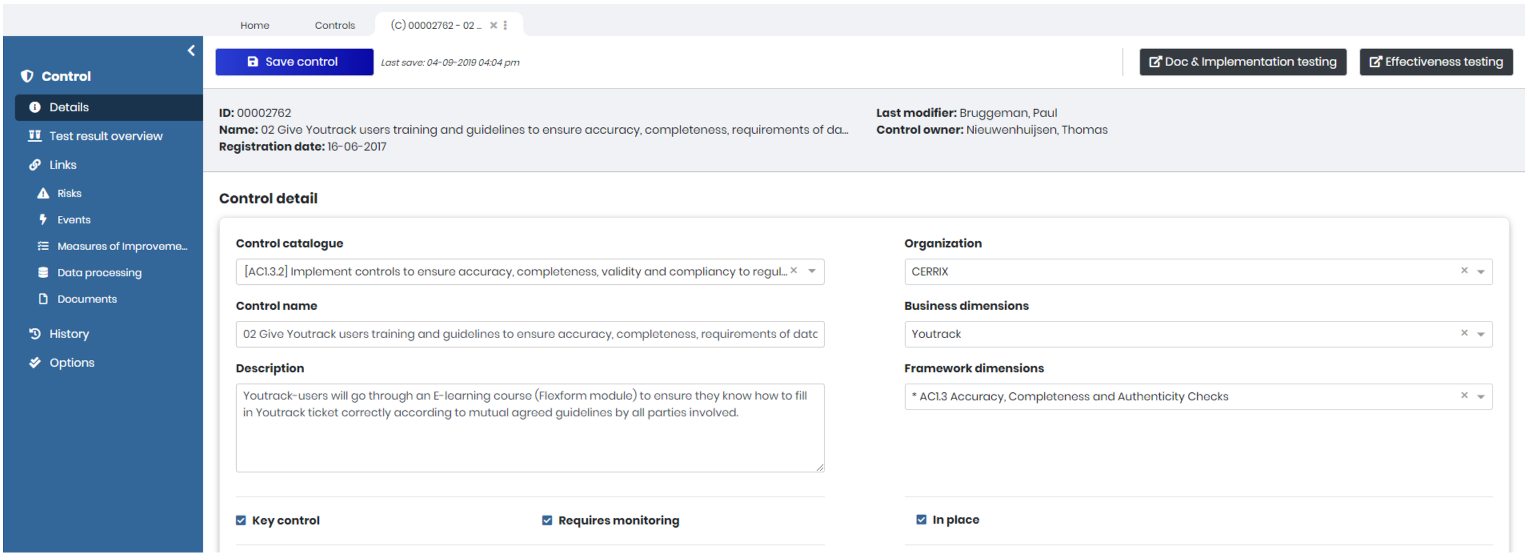


Figure 4: Add control details

In this screen you can enter the details for a new control. The screen consists the following data fields:
Control Summary

- **Control ID**: Select the applicable Control catalogue for the control;
- **Control name**: Enter the name for the Control;
- **Registration date**: Enter a short description of the control;
- **Last Modifier:** Select the organization to which the control applies.
- **Control Owner:**

Control Detail

- **Control catalogue**: Select the applicable Control catalogue for the control;
- **Control name**: Enter the name for the Control;
- **Description**: Enter a short description of the control;
- **Organization:** Select the organization to which the control applies.
- **Business Dimensions**: Select the business dimension(s) for which the control applies. When clicking on 'Change selection', you will see an overview of all selected business dimensions for this control. When clicking on 'all business dimensions', you will select all business dimensions for the organization. Check the box for the appropriate business dimension(s).
- **Framework Dimensions**: Select the framework dimension(s) for which the control applies. When clicking on 'Change selection', you will see an overview of all selected framework dimensions for this control. When clicking on 'all framework dimensions', you will select all framework dimensions for the organization. Check the box for the appropriate framework dimension(s).
- **Key Control**: Select the checkbox if the control is a key control;
- **Requires monitoring**: Select the if the control needs to be monitored in the Monitoring Control module;
- **In place:** Select the checkbox if the control is implemented;
- **Control Owner:** Select the owner of the control;
- **Type**: Classify the control as Detective, Preventive or Repressive;
- **Source**: The source of the control;
- **Start date:**
- **End date:**
- **Control frequency**: Select the frequency with which the control is used;
- **Aspect IC**: Select the category which the control belongs to;
- **Control Execution:** Select of the control is automated or manual;

Control Analysis

- **Conclusion summary:**
- **Initial Costs:** Enter the costs of implementing the control;
- **Annual Costs:** Enter each year recurring cost;
- **Comments:** Enter additional information for the control;

RACI

- **RACI:** The user should first select the relevant function (see "A" figure 5). After selecting the function, the user can select the relevant RACI through checkboxes (see "B" figure 5). When the data fields are filled in you can save the action by pressing the "**Add**"-button (see "C" figure 5). The RACI is then stored. To cancel any actions taken on the Action, you can press the "**Cancel**"-button (see "D" figure 5).

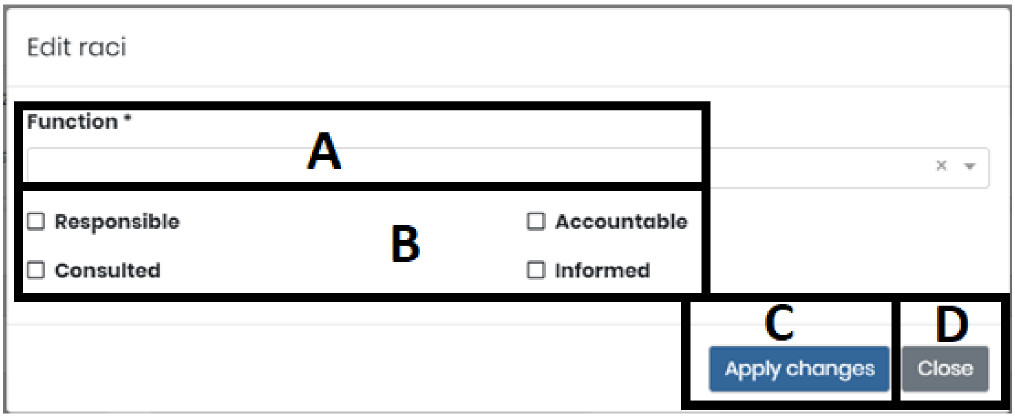


Figure 5: RACI Function

When the data fields are filled in, the user can save the Control by pressing the “**Save**”-button (see “A” figure 6).

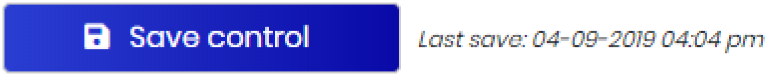


Figure 6:Save Control

The user is also able to delete controls by opening ‘options’ on the left navigation bar. Press the “**Delete**”-button (see “B” figure 6). Please note: It is only possible to delete a control when there are no linked Risks, MoIs, Events or Data processings.

Figure 7: Delete Control

Now that is indicated that the control must be monitored, it is possible to fill in the details of the monitored control.

3.3 Linking risks

Now that the control details are filled in, the user can link risks to the control, if he has a risk administrator or writer role, and add new Control MoIs or link existing IM MoIs to the control.

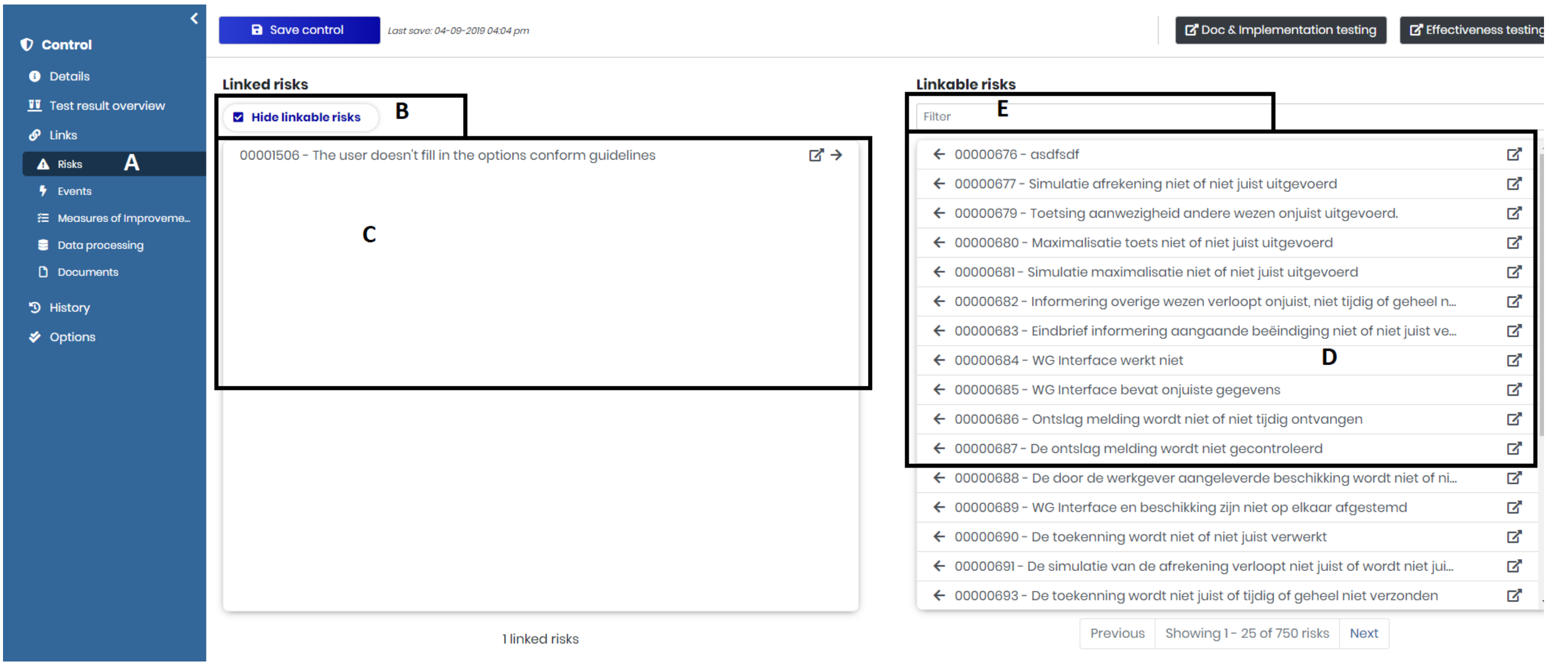


Figure 8 Linking Risks

To link risks to the control, the user must go to the 'Linked risks' tab (see "A" figure 8). On the left (see "C" figure 8) the linked risks are displayed. To open/hide the panel to add/remove linked risks users need to click on the "**Hide link panel**" -button (see "B" figure 8). When a user wants to add a risk, he must drag the risk from the right side (see "D" figure 8) to the left (see "C" figure 8). Users can search for risks using the filters in the top right (see "E" figure 8).

3.4 Control improvement (MoIs)

In CERRIX users van add and link Control MoIs to the control and link existing IM. To do so, they must go to the ‘Measures of Improvement’ (see “A” in figure 9). The screen from figure 9 opens. Users can add new Control MoIs to the control by clicking the “**Add New MoI**” -button (see “B” in figure 9). After that, the regular MoI screen appears. For further MoI instructions please consult BIM Manual. To delete added Control MoIs, click on the “**delete**”-button (see “B” figure 9).

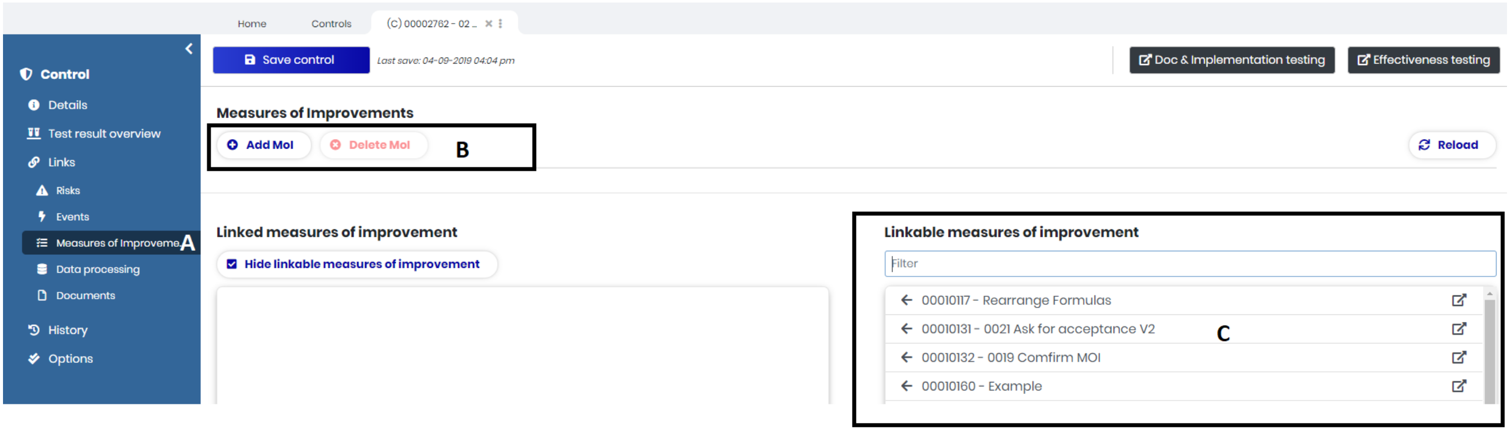


Figure 9 Control improvement

To link existing IM/Control MoIs, users can click the “**Show linkable Measures of Improvement**” -button. The screen from “C” figure 9. Here, a list of existing IM MoIs with the same organization as the control are shown. To link a MoI, click on the arrow MoI you want to link. To remove the linked MoIs, users must click on the MoI.

4. Controls testing

To monitor a control, it is necessary to indicate that the control needs monitoring. To do this, open the control that you want to monitor, and mark the checkbox Requires Monitoring (see “A” figure 10).

Now that is indicated that the control must be monitored, it is possible to fill in the details of Documentation & Implementation (see “B” figure 10) and Effectiveness Testing (see “C” figure 10).

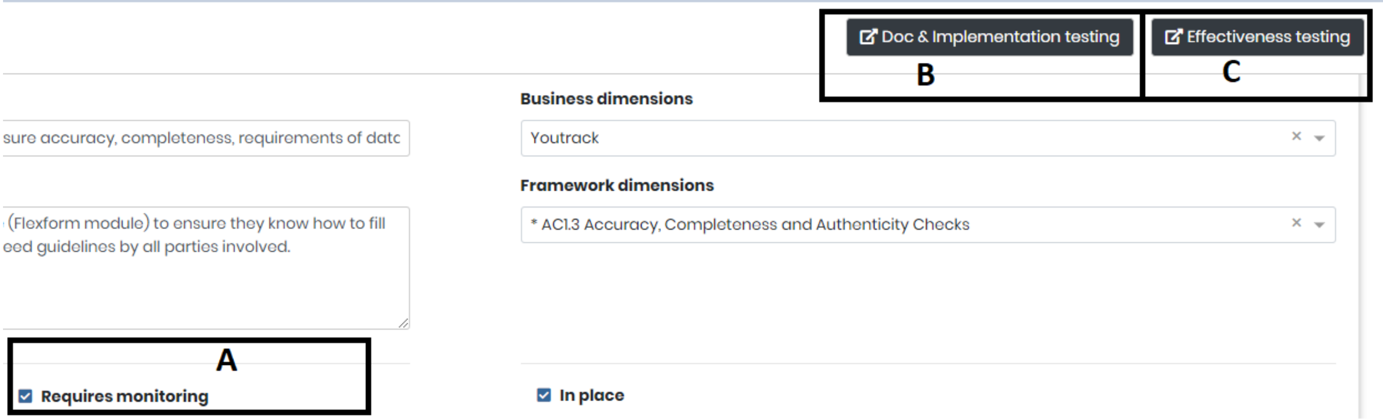


Figure 10 Requires Monitoring

When the ‘Required Monitoring’ checkbox is marked, the control will be shown at the Workspace with the filter ‘All monitored controls’. To only show the monitored controls, select “all monitored controls” (see “A” figure 11). In the bottom of the screen, all monitored controls are shown (see “B” figure 11).

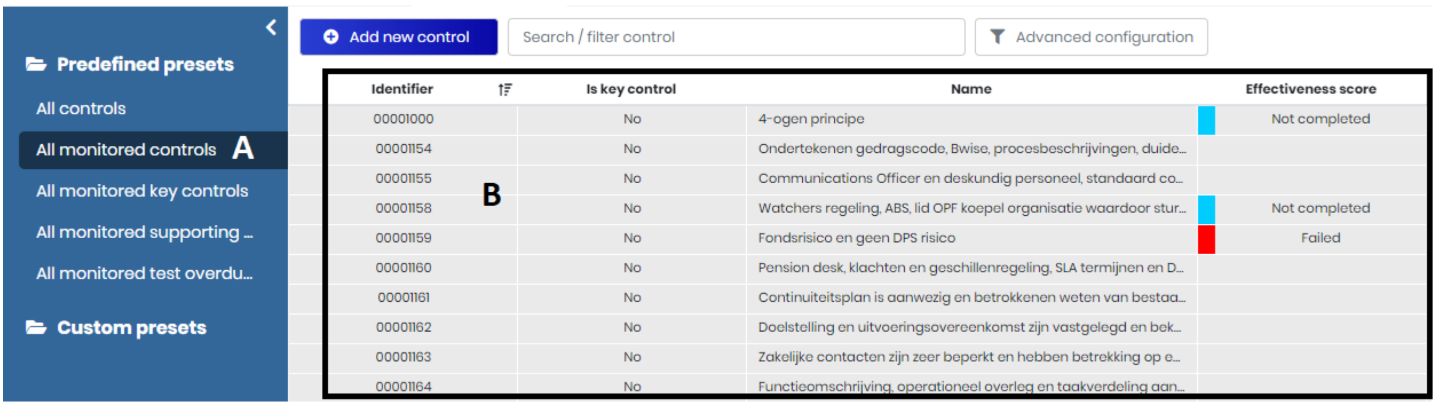


Figure 11 Workspace All monitored controls

4.1 Documentation & Implementation

Documentation & Implementation testing is a test where the focus will be on how the control is instituted and the existence of the control will be determined. This can be opened via the Doc & implementation testing'-button (see "B" figure 10).

Documentation & Implementation testing consists of two steps that can be repeated continuously:

1. Status: request evidence
2. Status: ready for assessment

These two steps will be explained in the following paragraphs.

Before starting a Documentation & Implementation Test the data must be filled. This will be filled automatically when the Catalogue is chosen. For further info about filling the catalogue, please inform the Standing Data manual.

For Documentation & Implementation testing the following items can be filled (see figure 12):

- **Tester(s):** select the person that assesses the tests for documentation & implementation within this catalogue;
- **Evidence Uploader(s):** select the person that provides evidence for documentation & implementation within this catalogue;
- **Initial Test date: s**tart of the first test period;
- Uploader Due date: # of days before the next test date the evidence uploader should be done uploading evidence.
- **Linked Standards:** fill f.e**.** with frameworks, such as CobIT;
- **# test samples:** give the number of samples that must be tested within the test period;
- **Quality Aspect:** focus on aspects such as accessibility, integrity, performance and reliability;
- **Test frequency:** elect the desired test frequency for tests within this catalogue. The options for test frequency are: daily, weekly, monthly, quarterly, semi-annually, annually, every two years, and every three years;
- **Test Activity:** phrase the exact activity that must be performed by the tester. Which documents needs to be provided by the evidence uploader and on what aspects does the tester need to focus;
- **Test norm:** determine **c**ompleteness, accuracy and timeliness

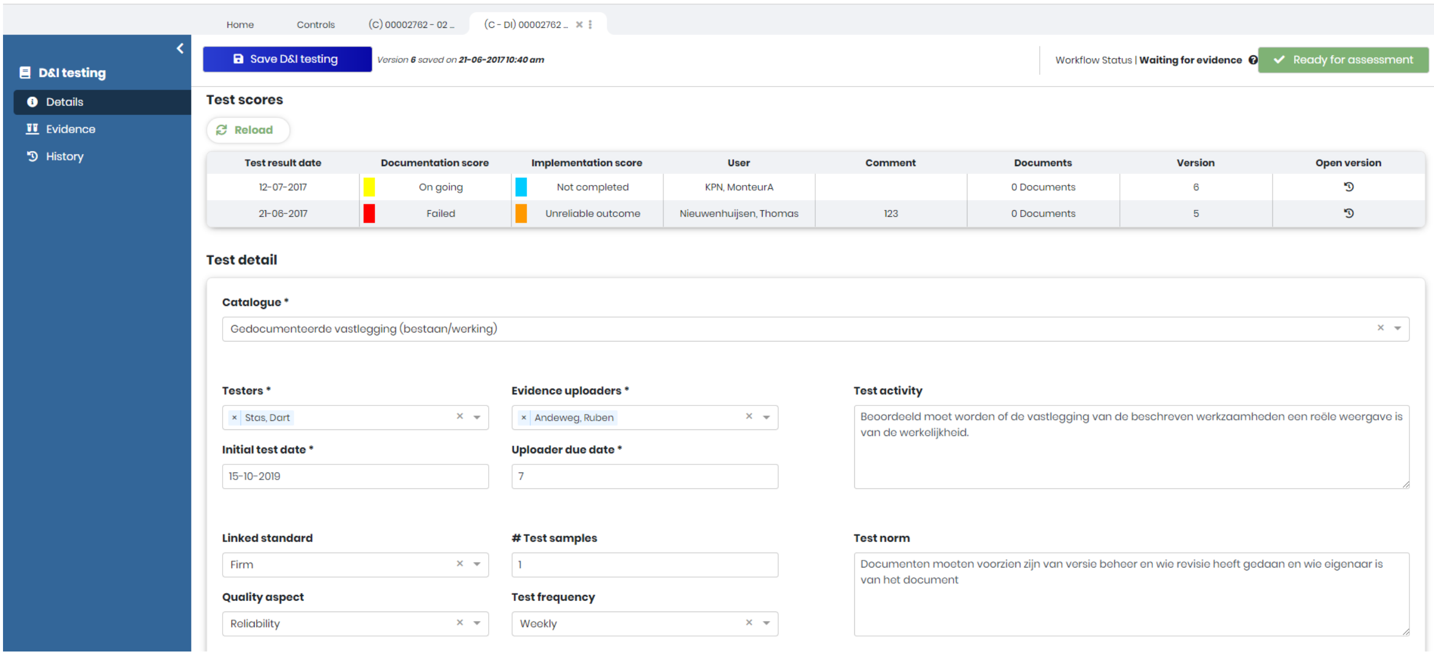


Figure 12 Documentation & Implementation

4.1.1 Adding evidence

When the test plan is filled in, evidence can be added. For the evidence uploader it is important to know what must be tested. (see “A” figure 13) The evidence uploader can see the filled in information about the tests at test activity. The evidence uploader has a read-only rights, and thus cannot change the test information. Adding evidence can be done after clicking on ‘**Evidence’** (see “B” figure 13). The screen displayed in figure 14 will then open.

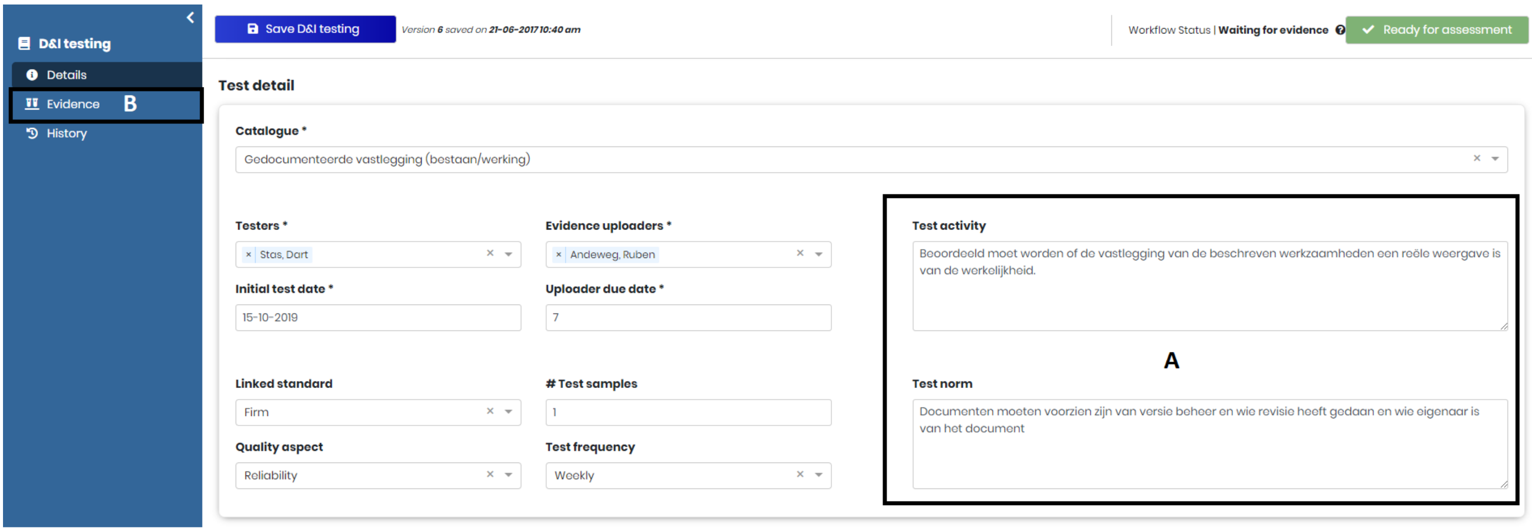


Figure 13 Documentation & Implementation Evidence Uploader

To add new evidence, click on the “**Add Document**”-button (see “A” figure 14). The pop-up displayed in figure 15 will then open.

The list displays per evidence the name of the document, when opening the document information via the ‘v’(see “B” figure 14)the user who uploaded the document and the date on which the document was uploaded (see “B” figure 14). Also the description of the document is given. To open the document, double-click on the name.

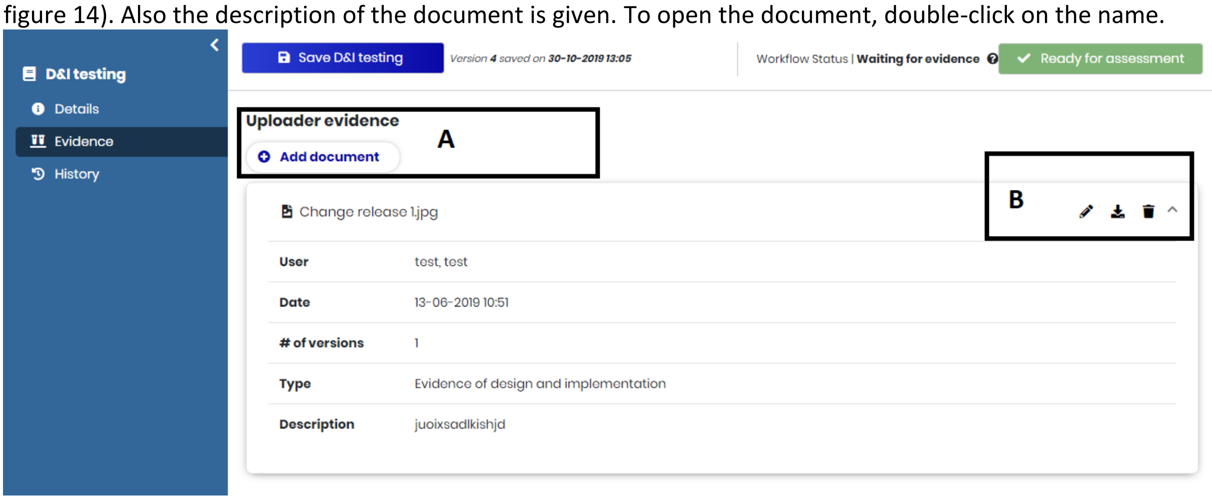


Figure 14 Documentation & Implementation adding evidence

After clicking on 'Add document' the pop up of figure 15 is given. By clicking on 'browse' a document from your own directory can be chosen. After selecting a document, you can select what type of document it is and add additionally a description to the document. To save the evidence, click on the "**Add document(s)**"-button.

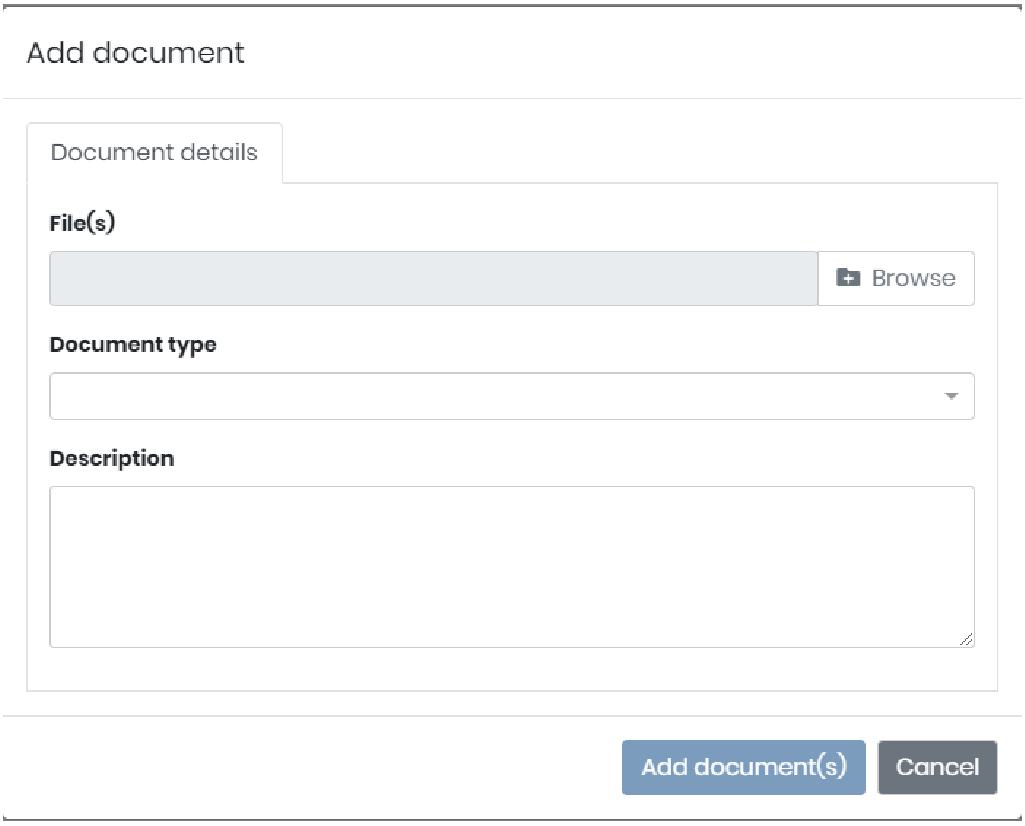


Figure 15 Add new document

In addition to adding evidence, it is also possible to edit and/or remove evidence. To change evidence, select the specific evidence entry and click on the "**pencil**"-button (see "B" figure 14). The same options when you add evidence appears, and it is possible to change the type of document and the description. It is not possible to change the title of the selected document. To delete evidence, select the specific evidence entry and click on the "**delete**"-button (see "B" figure 14).

Once all the necessary evidence has been uploaded by the evidence uploader, the evidence uploader clicks on the workflow-button 'Ready for assessment' (see figure 16).

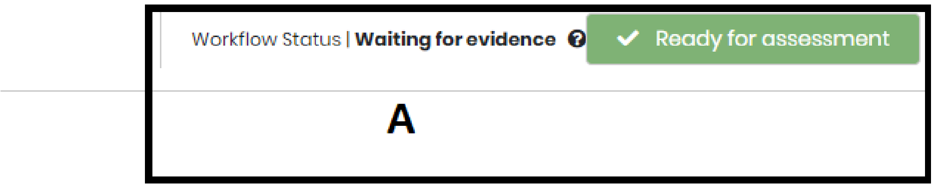


Figure 16 Ready for assessment

4.1.2 Scoring Documentation & Implementation

When the evidence uploader uploaded all the evidence and the testers can assess the evidence for the control and register his/her findings about the evidence.

4.1.2.1 Check evidence

Before the assessor can add his/her findings about the evidence, the assessor needs to look at the evidence. Therefore, open '**Evidence'** (see "B" figure 13). Here, a list with all evidence for 'documentation & implementation' is given (see figure 14).

4.1.2.2 Add test results for documentation & implementation

The test results for the documentation and implementation test are the first thing you see (see figure 17). The following information is given for each test result: test result date, design score, implementation score, user, comments, documents, version and historic version.

Test scores

Reload

Test result date	Documentation score	Implementation score	User	Comment	Documents	Version	Open version
30-10-2019	Needs significant impr...	Needs improvement	Andeweg, Ruben		0 Documents	4	
12-09-2019	Needs significant impr...	Needs improvement	test, test	lkvjndflivjndf	0 Documents	4	
13-06-2019	Needs improvement	Satisfactory	test, test	uhojfdshnfgkfjdehngdfiu	0 Documents	3	

View all 4

Figure 17 Test scores

To add a new test result, click on the "Add test result"-button (see figure 18). The pop-up displayed in figure 19 will then open.

Figure 18 Add test score

The fields test result date, documentation score and implementation score are required to fill in (see "A" figure 19). For the documentation score and the implementation score a score from the standing data can be filled in. It is possible to type the score or use the arrows next to the text field to select the desired score. In addition to filling in the required fields, the assessor can also add a comment to the finding (see "C" figure 19). To save the test result, click on the "**Apply changes**"-button (see "D" figure 19).

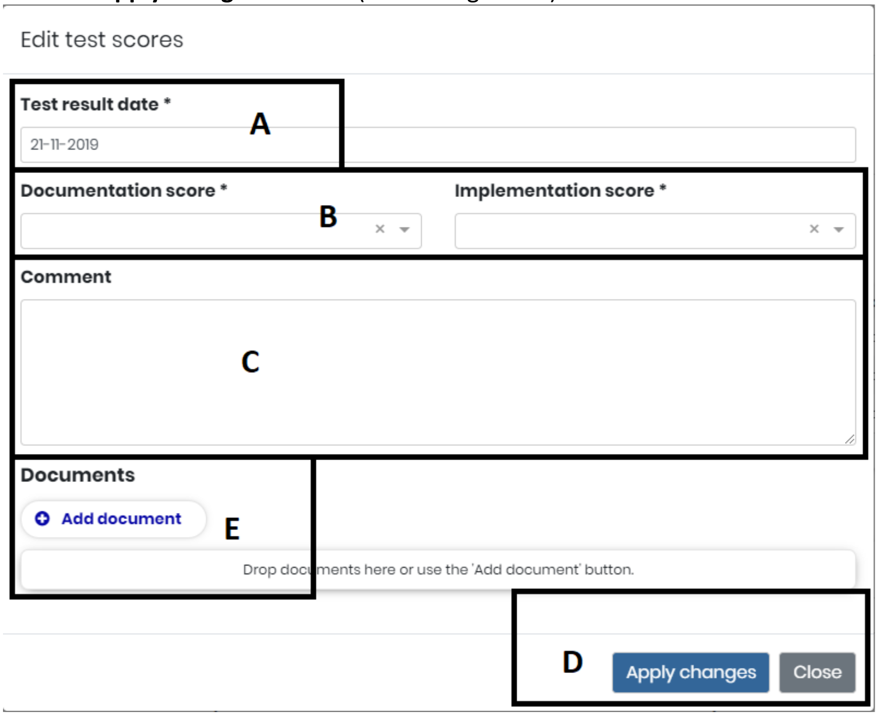


Figure 19 Documentation & implementation test result

4.1.2.3 Add document to the test result

After saving the test result, it is possible to add a document to this test result. To do this, open the specific test result by double-clicking on the test result (see "E" figure 19).

To add a document, click on the "**Add Document**"-button (see "E" figure 19). The pop-up displayed in figure 13 will then open. Here you can select a document from your own directory.

4.2.3 Changing test details

When test plan details are not sufficient for the testing anymore, it is possible to change the test details. The Control Unrestricted Administrator, Control Restricted Administrator, Control Test plan Creator and Control Tester can change the test details anytime. This is done in the same way as filling in the test details. After finishing the change, click on the "**save**"-button.

Every time the details of a test plan are changed; the version of the test plan is changed as well. The version of the test plan can be found next to the **save**-button (see "A" figure 20). When adding a new finding, the version is automatically changed to the new version of the test plan.

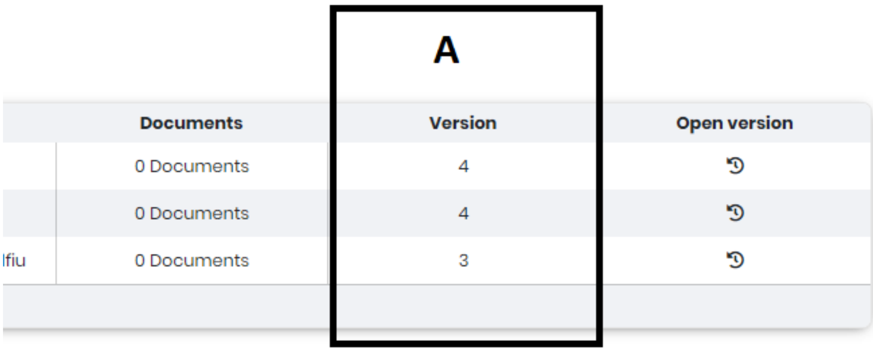


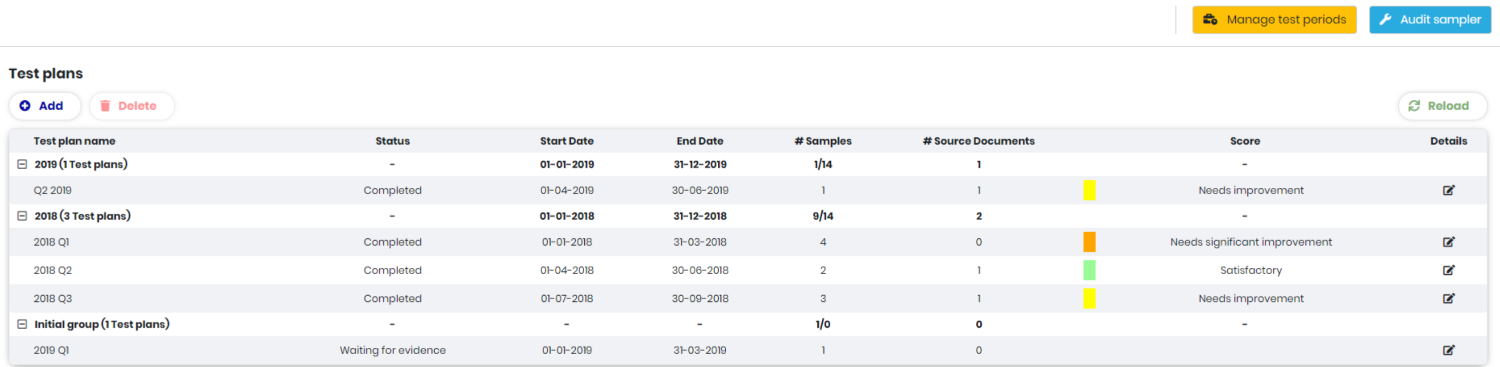
Figure 20: Test details, version

4.2 Effectiveness Testing

The second test is Effectiveness Testing, where functioning of the control be will tested. For Effectiveness testing the application supports two types of testing: simple and advanced. In this manual Advanced Testing will be explained.

4.2.1 Creating Effectiveness Test plans

Effectiveness Advanced Testing is called advanced, because this is more extensive. With Advanced Testing there are for example four roles. In the next paragraphs the setup of a test plan will be explained and the four different roles.



Test plan name	Status	Start Date	End Date	# Samples	# Source Documents	Score	Details
2019 (1 Test plans)	-	01-01-2019	31-12-2019	1/14	1	-	
Q2 2019	Completed	01-04-2019	30-06-2019	1	1	Needs improvement	
2018 (3 Test plans)	-	01-01-2018	31-12-2018	9/14	2	-	
2018 Q1	Completed	01-01-2018	31-03-2018	4	0	Needs significant improvement	
2018 Q2	Completed	01-04-2018	30-06-2018	2	1	Satisfactory	
2018 Q3	Completed	01-07-2018	30-09-2018	3	1	Needs improvement	
Initial group (1 Test plans)	-	-	-	1/0	0	-	
2019 Q1	Waiting for evidence	01-01-2019	31-03-2019	1	0		

Figure 21 Test plan overview

4.2.1.1 Manage Groups

Before adding a test plan, it is possible to create groups, in which test plans can be assigned. To create a group, click on the '**manage test periods**'-button (see "A" figure 22).

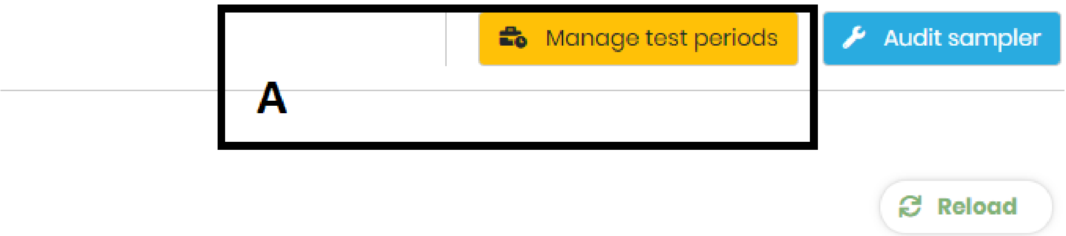
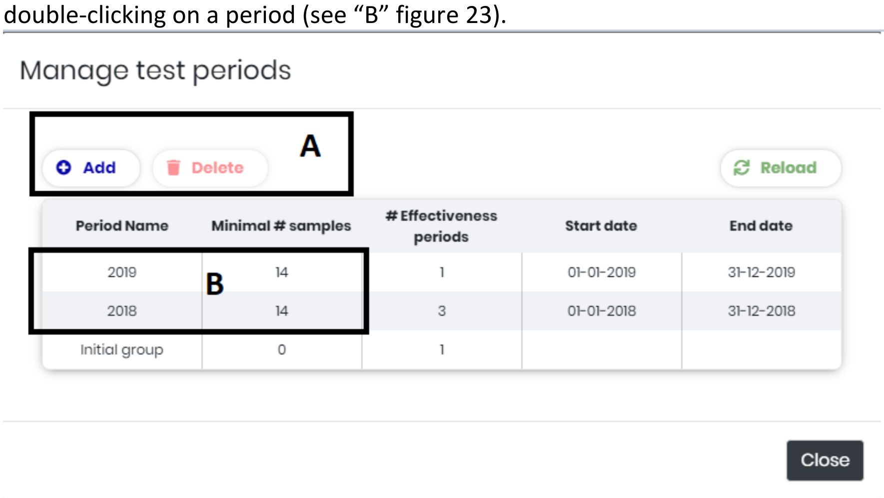


Figure 22: Manage Group

In the following screen a period can be added, deleted and edited (see "A" figure 23). Edited can be done when double-clicking on a period (see "B" figure 23).



Period Name	Minimal # samples	# Effectiveness periods	Start date	End date
2019	14	1	01-01-2019	31-12-2019
2018	14	3	01-01-2018	31-12-2018
Initial group	0	1		

Figure 23: Add Test plan

A group consists of four fields (see “A” figure 24):

- Group name: Name of a period, mostly years f.e. 2018
- Min. Number of samples: How many samples in the period must be tested
- Start date: Start of period
- End date: End of period
-

To add the period, click on the ‘**Add group**’-button (see “B” figure 22). This will take you back to figure 20.

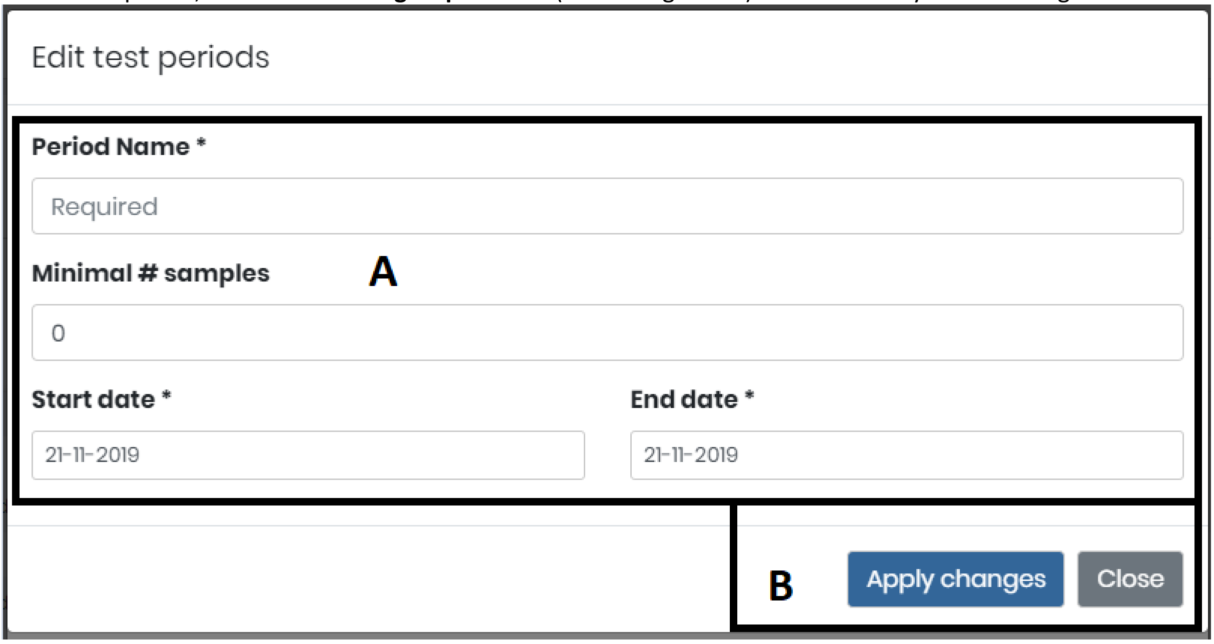


Figure 24: Settings Group

4.2.1.2 Effectiveness Advanced Testing Wizard

After the period is added, a test plan has to be added. When you click on the ‘**Add test plan’**-button (see ”A” figure 25) the wizard for adding a test plan will open (see figure 26).

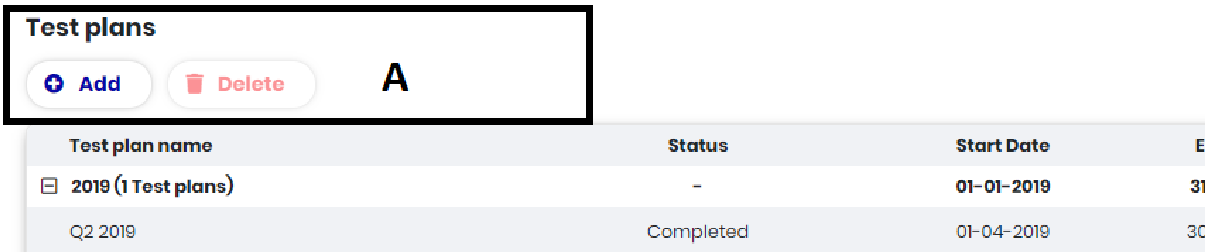


Figure 25: Add test plan

In the wizard there are six steps to complete the setup of a test plan (see “A” figure 26): In the first step there are three options to add a test plan (see “B” figure 26):

- Create a new test plan
- Select a test plan from the catalogue (will use data from test plan in Effectiveness Catalogue)
- Select a test plan from an existing test (will use data from test plans already created in the Control)

When adding a new period the following items have to be filled *(see “D” figure 26)*:

Period Details

- Test plan name: Name of the test plan
- Period group: Choose a period to combine multiple tests
- Start date: Start date of the period that will be tested
- End date: End date of the period that will be tested

When you chosen a test plan origination, click on the ‘**next**’-button (see “D” figure 26).

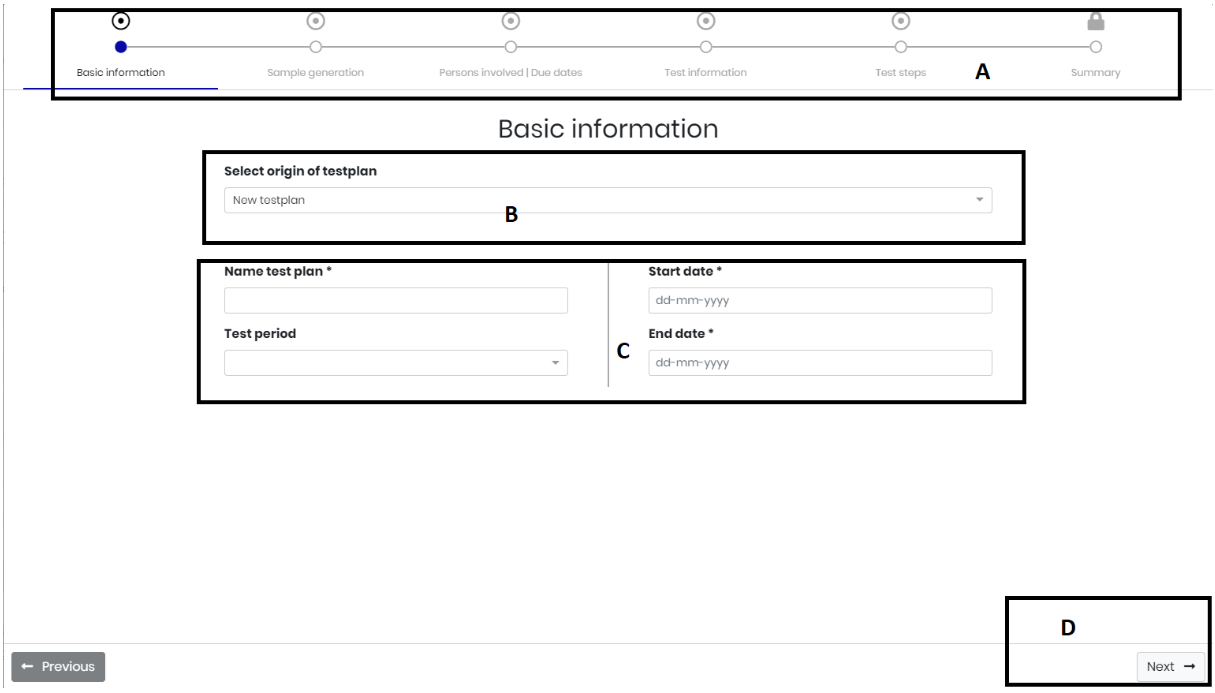


Figure 26: Test plan wizard

In step two the samples generation method has to be chosen. In sample generation there are two options (see "A" figure 27):

- Automatic: Automatic Sample generation by Source Uploader.
- Manual: Manual Sample generation, a reason is required.

Click 'next' to continue the wizard(see "B" figure 27).

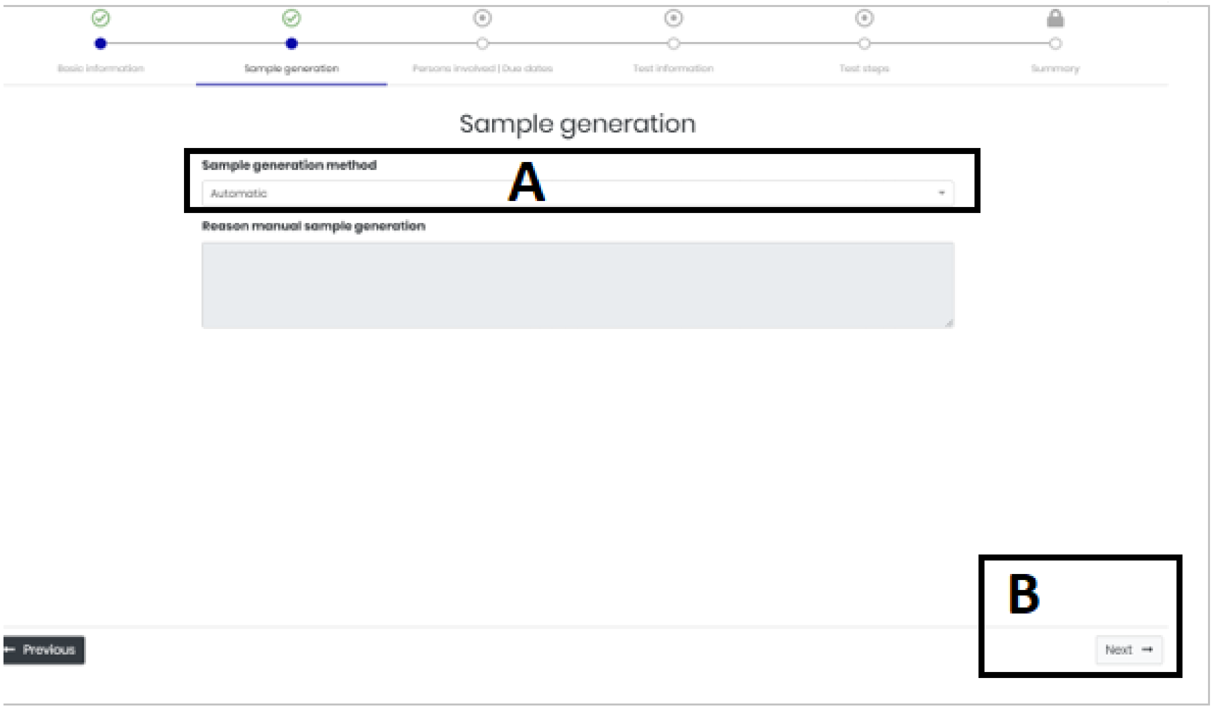


Figure 27: Sample generation

After Sample Generation the involved persons (see B “figure 28) have to be filled. This consists of the following fields:

- Source uploader + Due Date
- Evidence uploader + Due Date
- Tester + Due Date
- Reviewer + Due Date

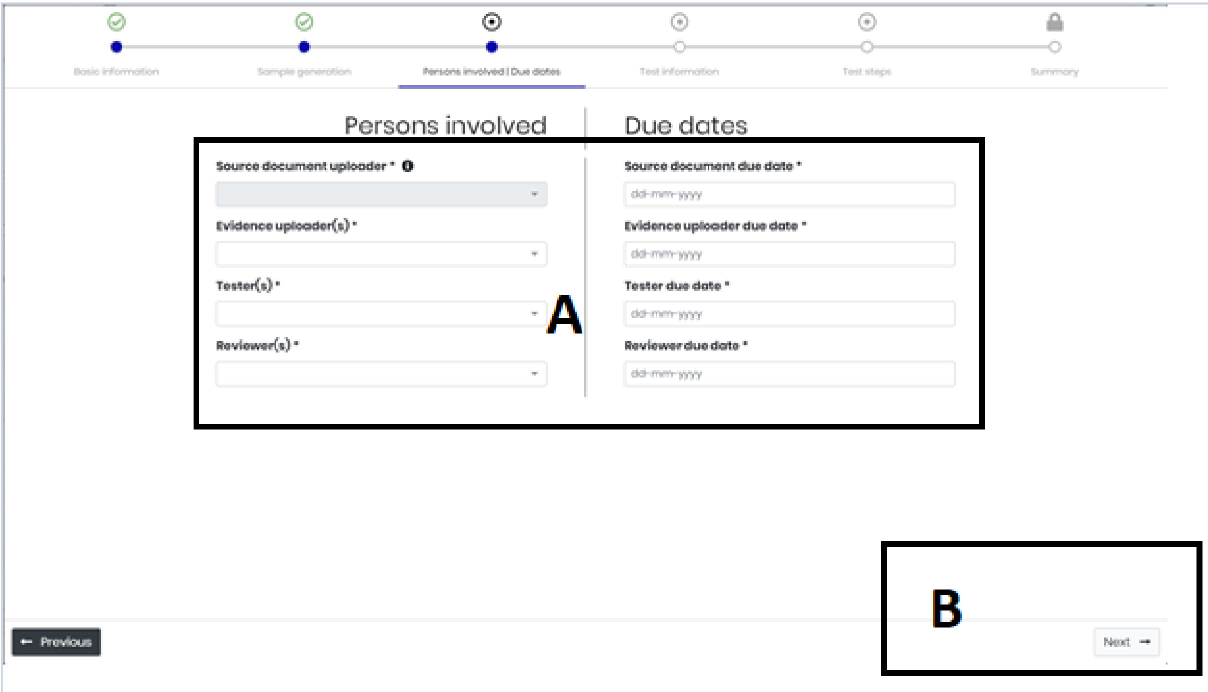


Figure 28: Persons invloved

Step 3 of the wizard will ask to fill Linked Standards such as ISAE3402 or CobIT. Linked Standards are given from Standing Data. Also the Quality aspects have to be given, such as integrity, security or timeliness (see “A” figure 29). It is also possible to add a test norm, here the test plan creator can provide information to what requirements the evidence will have to correspond to score sufficient (see “B” figure 29). Click “**Next**” to continue the wizard. If the test plan creator want to go back to a previous test step, they can click on “**Previous**”. Data won’t be lost when going back to a previous step.

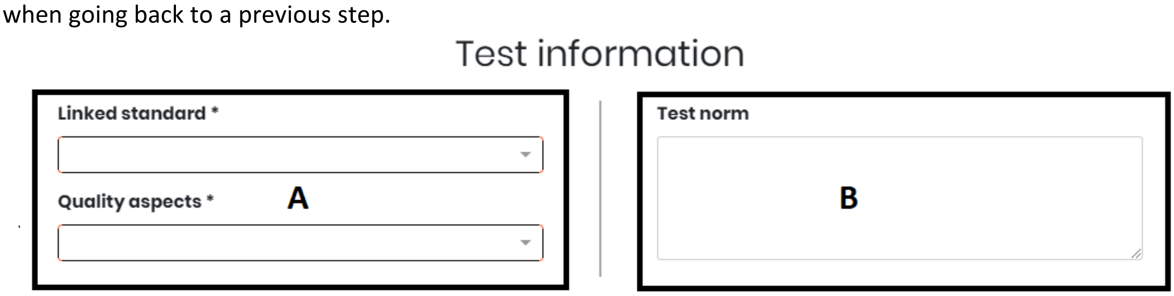


Figure 29: Basic Test information

The next step, step 4 of the wizard, the test plan creator can add test steps to the test plan. To add a test step, click the “**Add test**” (see “A” figure 30). When the button is clicked, a pop-up appears where the details of the test step can be filled in.

Figure 30: Manage test steps

The following items need to be filled when creating a test step (see “A” figure 31):

- Reference:
- Description: A description of the test step;
- Required documents: the documents required to execute the test step;
- Test method: where the testing method is chosen. The test plan creator has four options:
    - Reperformance;
    - Document research;
    - Review on site;
    - Interview.

When the test plan creator is done filing in the fields, the test step can be add using the “**Apply changes**” button (see “B” figure 31). The popup will close, and the test step is added. The go to the final step in the wizard, click “**Next**” (see “B” figure 31).

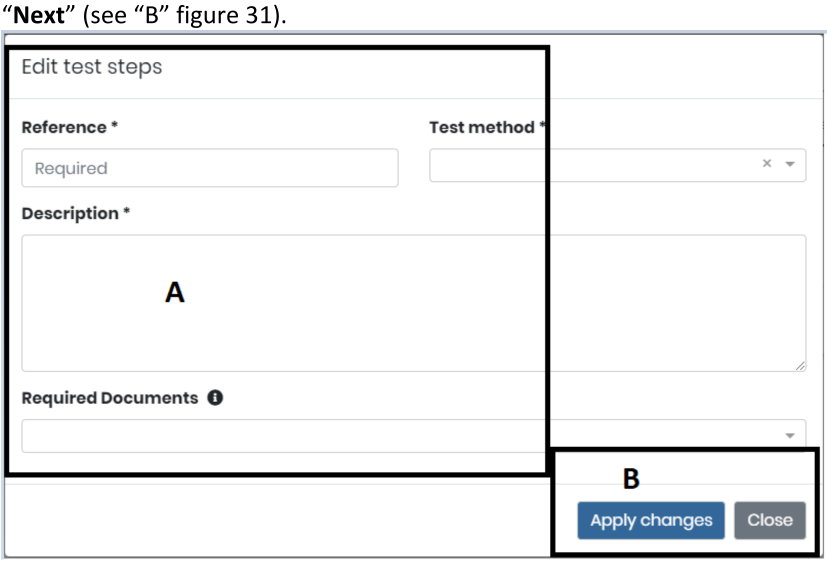


Figure 31: Describe test step

In the final step of the wizard, it is possible save the test plan so it can be reused (see “A” figure 32).

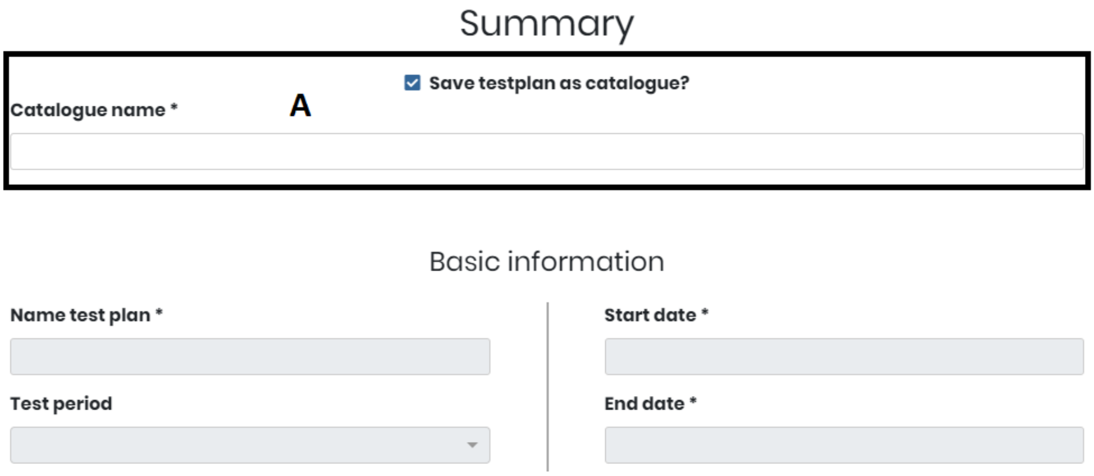


Figure 32: Save test plan

The summary is also an overview of the entire test plan. Data of the test plan can also be edited in this screen. When the test plan is complete the test plan creator can clicking on the ‘**Complete’**-button(see “A” figure 33)**.**

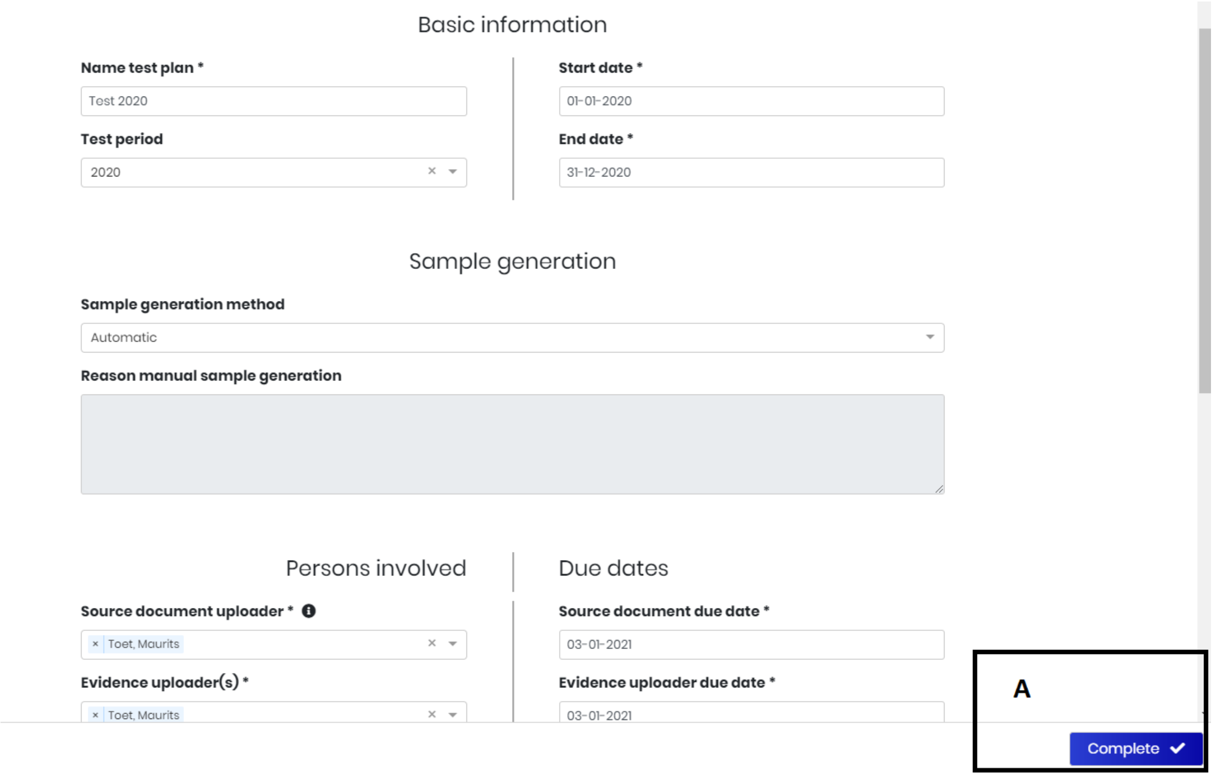


Figure 33: Test plan summary

4.2.2 Effectiveness Testing

4.2.2.1 Source Document Uploader

The Source Document Uploader will upload documents that will contain data which can be used for generating samples or giving info about the test plan. The Source Document Uploader needs to perform two actions:

1. Provides source documentation for the test.
2. Set population and Generate samples

A control can be opened via the controls workspace (see “A” figure 34), via the test plan workspace(see “B” figure 34). For further instructions of the Workspaces see Chapter 5 ‘Workspace’.

Figure 34 Controls Workspace

Test plans can also be opened via a mail message or via the agenda. In the agenda all actions in demand of the users are shown. The action where the user is assigned as Source Document Uploader is also shown in this list (see figure 35).

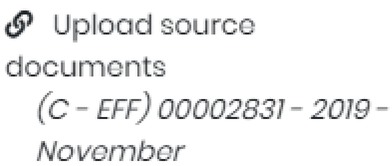


Figure 35 Agenda Source Document Uploader

When the Source Document Uploader opens an action via the agenda the following screen will be shown (see figure 36).

The Source Document uploader can upload documents via ‘**Add document**-button’ (see “A” figure 36). After uploading documents, the user can complete its action by choosing ‘**Upload Source Documents complete**’ (see “B” figure). There is also a ‘**control didn’t occur**’-option (see “C” figure 36).

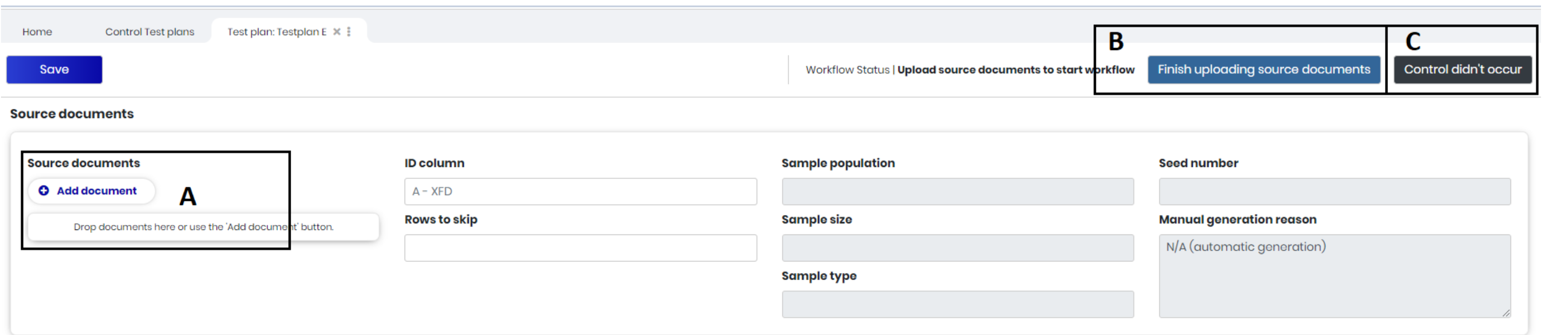


Figure 36 Add source documents

The next step is to generate samples. This is possible via the button **'Generate samples'** (see figure 37).

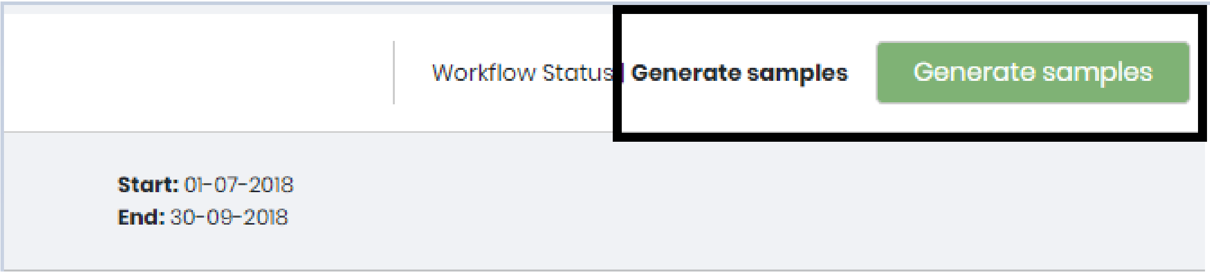


Figure 37 Generate samples

Generating samples can be done in three ways: '**number'**, '**date' or spreadsheet**.

Number:
With sample type 'number' population and number of test samples has to be given (see figure 38).
Date:
With sample type 'date', only number of samples has to be chosen, because the given start and end date in the test plan will determine how large the population is.
Spreadsheet:
With sample type 'spreadsheet', the system processes the uploaded source document. It will read the number of lines in an .xlsx file and determines the population. You have to give the number of samples based on the population.

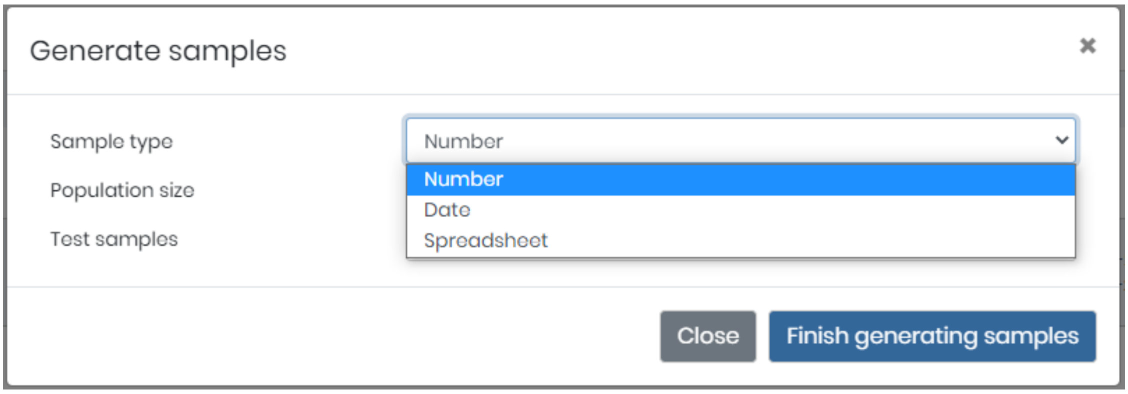


Figure 38 Choose Sample Type

Upload source documents via First Line Screen
This was the last test step of the source document uploader. The Evidence uploader will receive an e-mail that evidence can be added.

4.2.2.2 Evidence uploader

The evidence uploader will provide the document(s) that will be tested by the tester (and reviewer). The evidence uploader can receive information about which documents need to be uploaded via the test plan and the source document.

The work of the evidence uploader can contain 3 steps:

1. Upload evidence per test step
2. Upload evidence per sample
3. Upload evidence per test plan

The evidence uploader can use Test plan screen or First Line Screens. Both methods will be explained.

Upload evidence via the test plan

Opening the test plan is the same as for the Source Document Uploader. For instructions please consult Source Document Uploader or chapter Workspace.

When opening the test plan the evidence uploader can see how many samples are generated (see figure 39). Open a sample or test step to upload evidence by clicking on the '**+**'-button(see "A" figure 41). You can also open all samples to click on the upper "+"(see "B" figure 43).

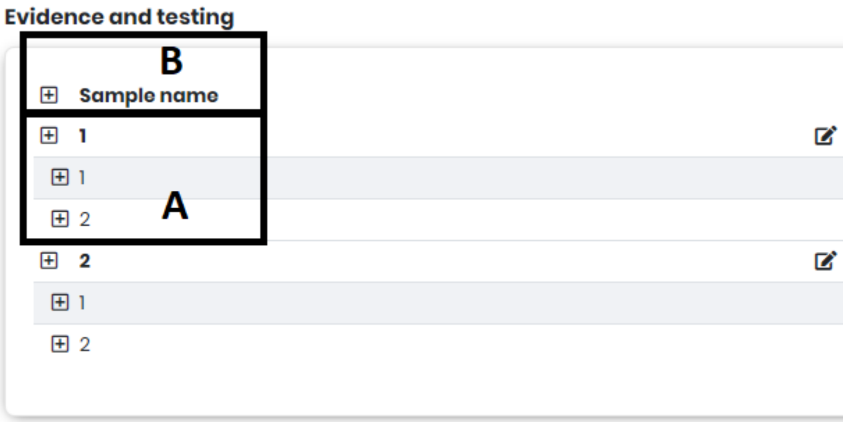


Figure 39 Samples Evidence Uploader

The evidence uploader can upload evidence per sample(see “A” figure 44) or per test step(see “B” figure 44). For every test step the test step description can be given(see “C” figure 44). It can also occur that there is no evidence, in that case the user will have to open the sample and choose ‘no evidence for this sample(see “D “ figure 44). When there is no evidence the user will have to give a reason why there is no evidence(see “E” figure 44). If the evidence uploader has completed uploading documents for this sample, it will have to repeat former steps.

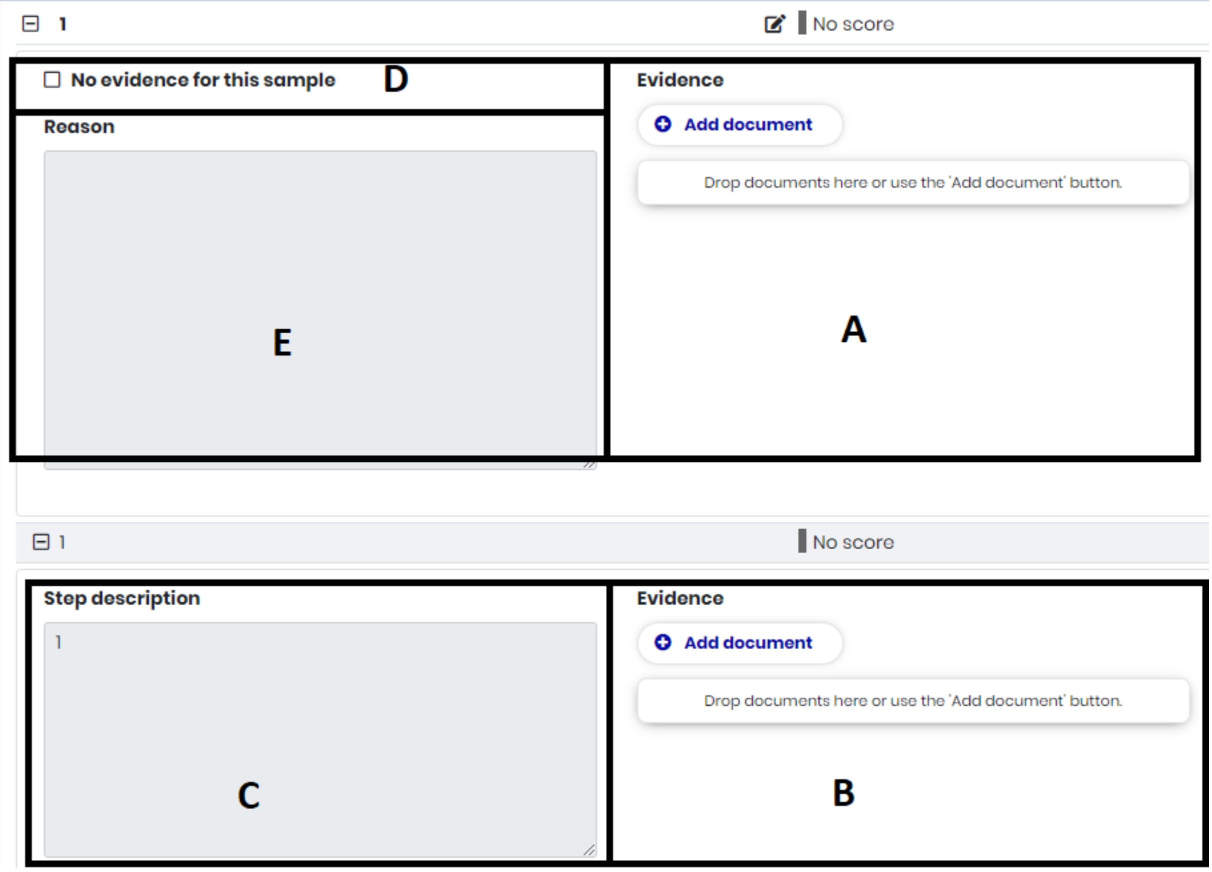


Figure 40 Upload evidence

Last step will be to complete uploading the evidence. This can be done via the ‘**Complete uploading evidence for selected test plan**.’-button (see figure 45) If the user clicks this button, the tester receives an e-mail that the test plan can be assessed.

Figure 41 Complete Uploading evidence

Upload evidence via First Line Screens
In the agenda of the Evidence Uploader actions are shown where the user is assigned to. The user can only open a test plan is the lock is removed (see "A" figure 46).

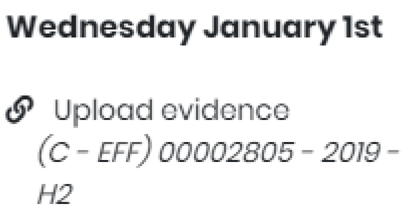


Figure 42 Agenda Evidence Uploader

After opening the action from the agenda, the screen in figure 46 will be shown. In this screen following information is given (see "A" figure 47):

- Control name
- Control description
- Test plan name
- # of samples will be tested
- Required documents
- Due date and
- Source Document Uploader

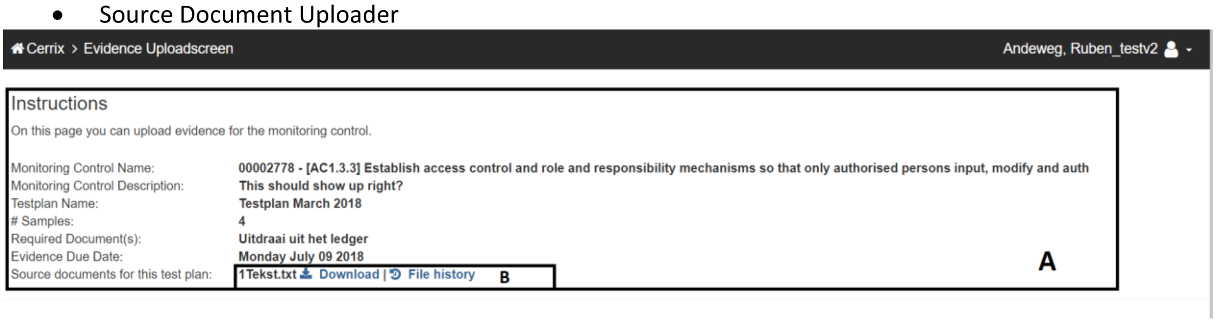


Figure 43 Evidence Uploader First Line Screen

Per sample a document can be added or indicated that there is no evidence (see "A" figure 48). Per document, the type of document and a description can be added. After uploading documents the user can choose to save current status, or set the test plan 'ready for testing'(see "B" figure 48).

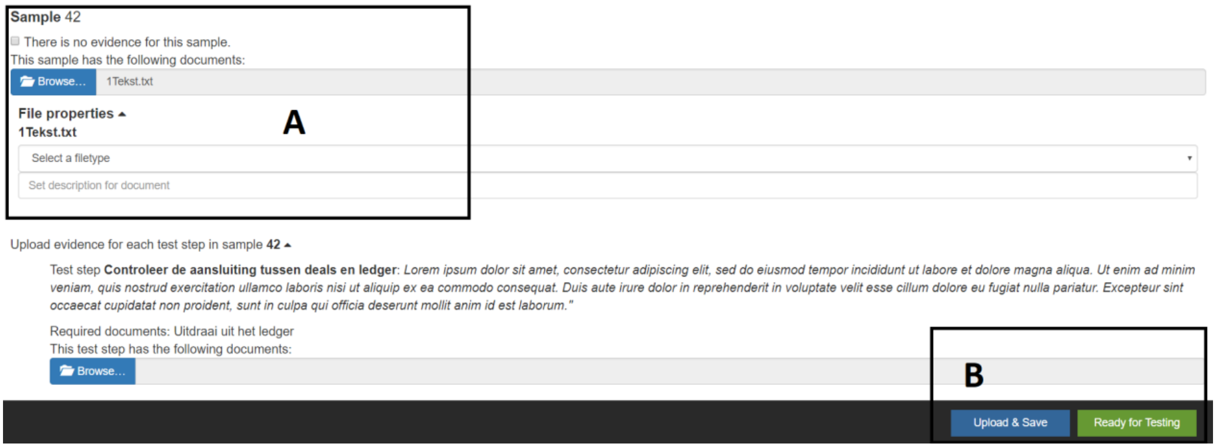


Figure 44 Evidence per sample

4.2.2.3 Tester

The work of the tester can contain 3 steps, these steps will be explained in this paragraph:

1. Score test steps
2. Score samples
3. Give overall test plan score

The tester can open control test plans via the Test plan Workspace, via the agenda, via e-mail or via the control. In this manual opening the control via the agenda will be explained. The tester will see the required action in its agenda (see figure 49).

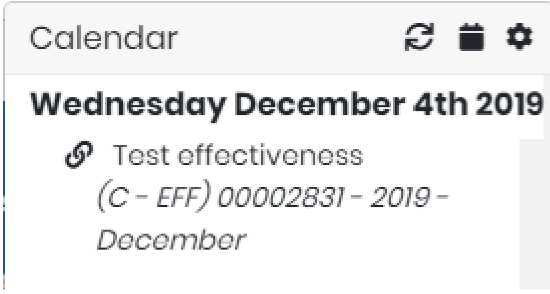


Figure 45 Agenda Tester

After clicking on the agenda, the test plan will be opened. The tester needs to open the samples and test steps via the "**+**"-button to score the samples and test steps.

The tester can score per test stap with the options: correct; incorrect, inapplicable (see "B" figure 50). The evidence per sample(see "C" figure 50) or test step (see "D" figure 50) is shown next to the test step description(see "E" figure 50). If all test steps are scored, the tester can score the sample(see "A" figure 50).

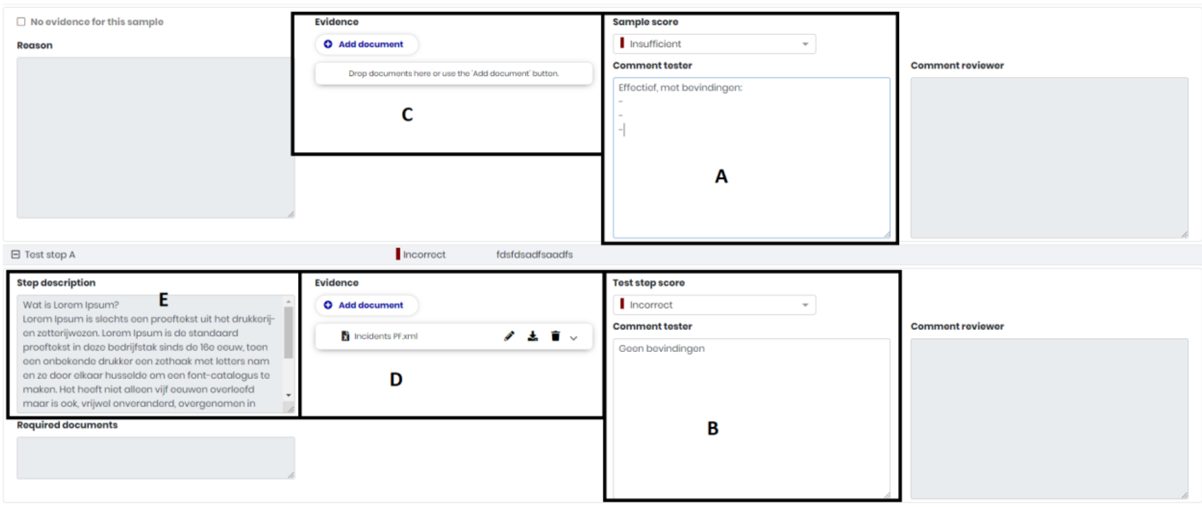


Figure 46 Test plan

The evidence can be edited with the “pencil”-button (see figure 51). Document can also be added and deleted

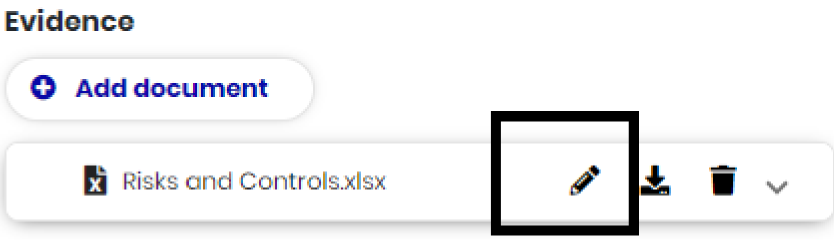


Figure 47 Evidence per sample

In History ‘Evidence’ document can be downloaded with versioning(see “A” figure 52).

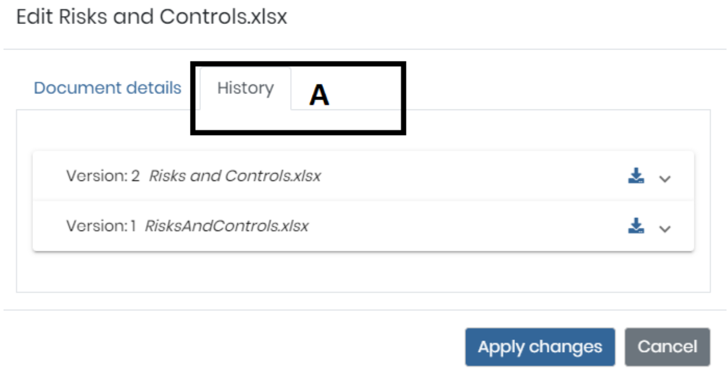


Figure 48 History of samples

When all samples are scored (see “A” figure 53), the tester can give an overall score. There are two options, ‘Add final conclusion for testing’ or ‘Missing evidence for conclusion’ (see “B” figure 53).

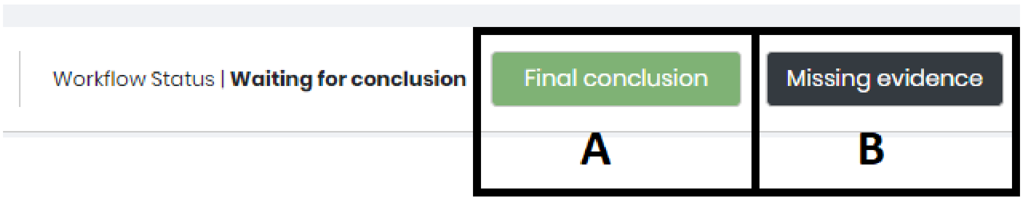


Figure 49 Samples scored

When choosing ‘final conclusion’ figure 54 will be shown. Before scoring the complete test, a comment is required. When saving the final score, the test plan will be sent to the Reviewer (in case the reviewer is used).

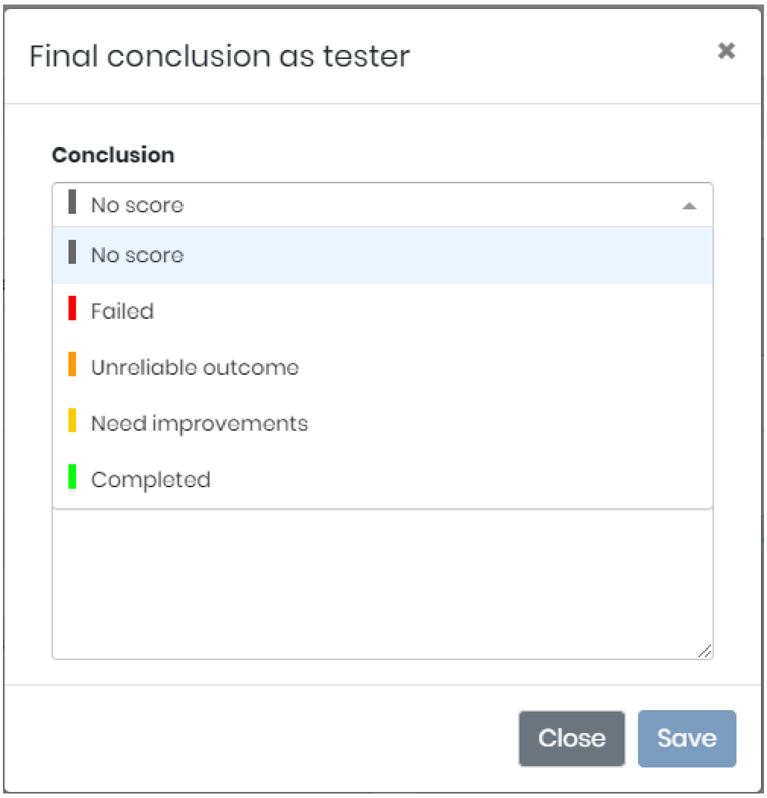


Figure 50 Final Conclusion

When choosing ‘Missing evidence’ (see “B” figure 55) the test plan will be sent to the evidence uploader. Before rejecting the evidence, a comment must be given.

Figure 51 Missing Evidence Reason of Rejection

4.2.2.4 Reviewer (Optional)

A reviewer will have to review the test score of the tester, this means Effectiveness Testing will have a 4-eyes principle.

When reviewing a test plan, the reviewer has three options, these options will be explained in this paragraph:

1. Accept score
2. Modify score
3. Reject score

The reviewer can open controls via the Test plan Workspace, via the agenda, via e-mail or via the control. Opening the test plan is the same as for the Source Document Uploader. For instructions please consult Source Document Uploader. After all previous actions have been completed, the action of the reviewer is released in the agenda (see figure 56).

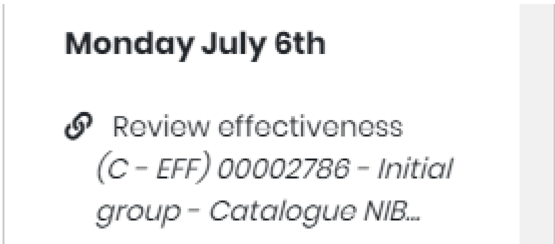


Figure 52 Agenda Reviewer

When the reviewer opens the test plan, three options are shown (see “A” figure 57).

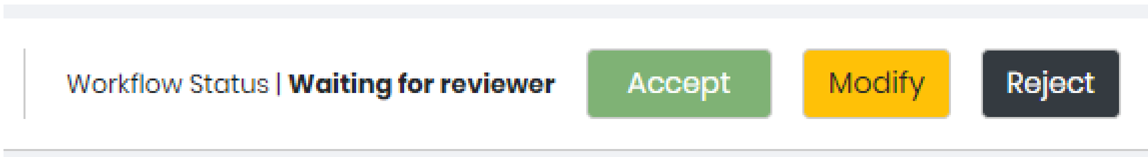


Figure 53 Review screen

If the reviewer Accepts the score of the tester, a comment is required (see figure 58). The reviewer can also choose to modify the score. A comment is required but also a review score has to be given. When ‘Accept’ or ‘Modify’ is chosen, the test plan is completed. In case of rejecting the score of the tester a comment is required and the test plan will be sent to the tester.

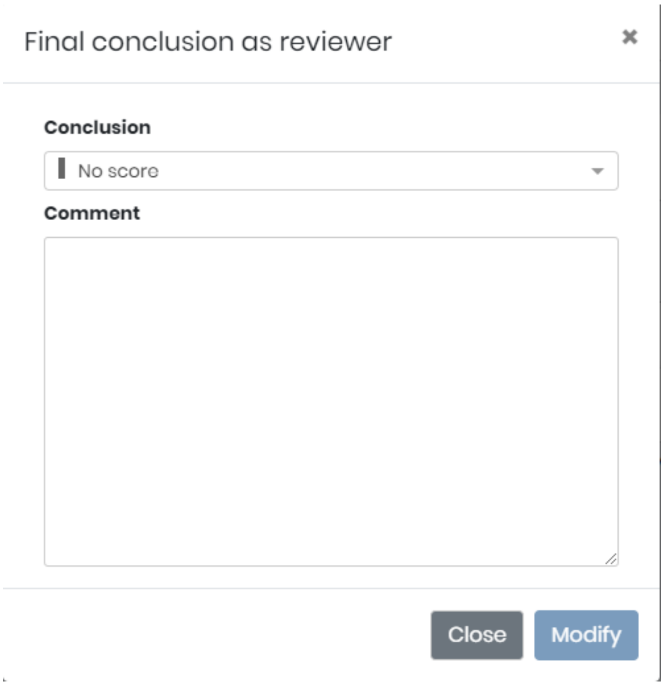


Figure 54 Review Score

4.2.2.5 Test plan history

On the left of the test plan screen the history of test plan is shown. (see “A” figure 59). For every status change the time and date are noted, the user which has performed the last action, which status and type of status it, possible conclusion score and comments.

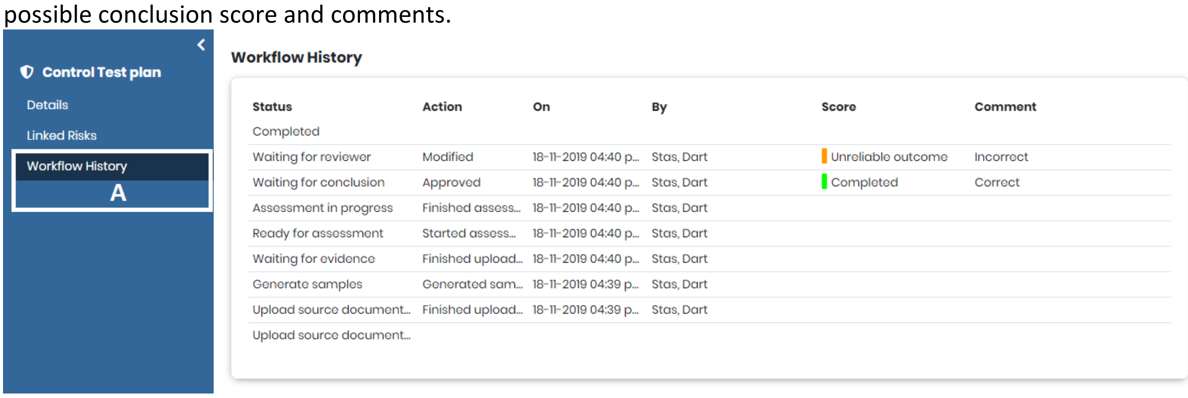


Figure 55 Status

The score of the reviewer is leading throughout the application. This means the review score is shown on the dashboard, in reports and in exports.

5 Workspace

The workspace screen is a quick way to view which controls are present in the database and in which state they are in. If you have access to multiple modules (i.e. the Risk or Events module) in the application, you need to select the “Controls” tile. Below you’ll see the workspaces (see figure 60).

Figure 56 Startpage Controls

When the Controls Workspace is opened, the overview list provides the Control items and their status. A Control can be in the following filter groups: All controls, all monitored controls, all monitored key controls, all monitored supporting controls, all monitored test overdue controls. The user starts with ‘All Controls’, all controls that the user is allowed to see. When choosing one of the other point of views, the list with controls will change. If the user wants to sort order a column, click on the header of the column.

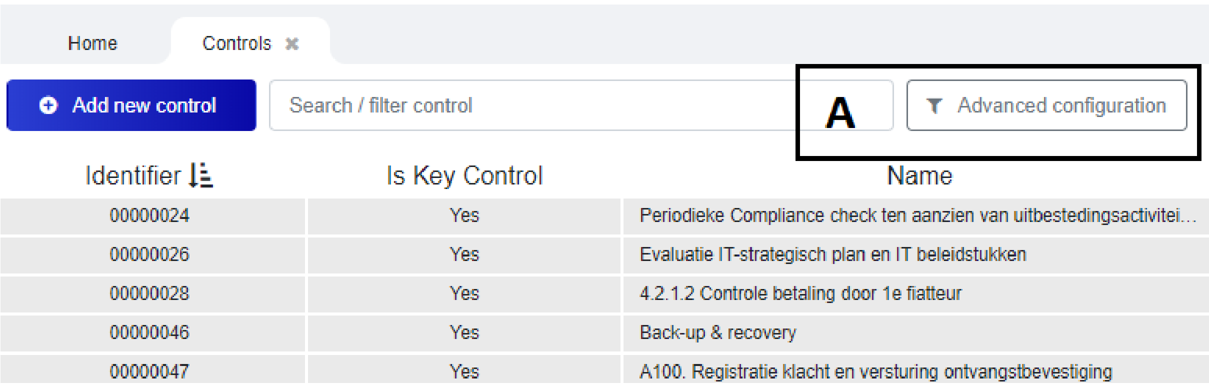


Figure 57 Controls list

The shown result can also be adjusted by using filters. The filters are available at ‘Advanced configuration’ (see “A” figure 61).

When opening the Advanced configuration, you can filter on structures Organization, Business Dimensions and Framework Dimensions(see “A” figure 62). It is also possible to filter on fields of the Controls (see “B” figure 62).

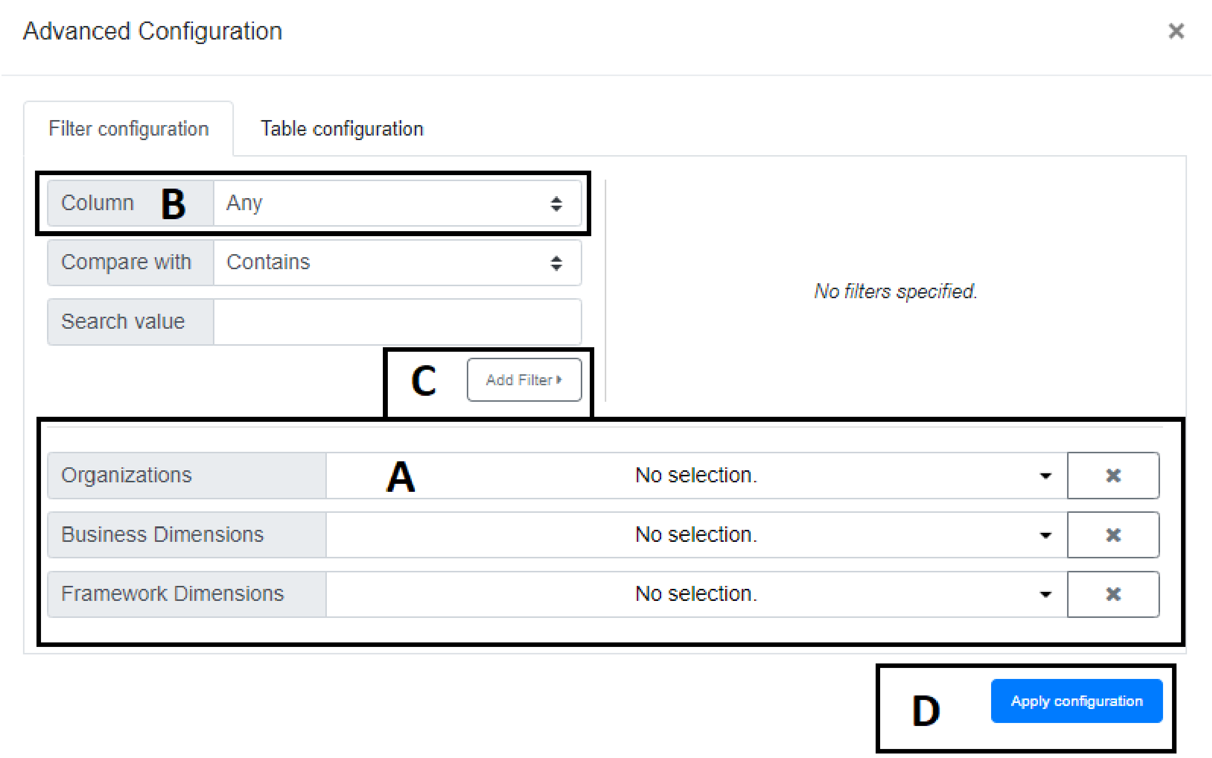


Figure 58 Advanced Configuration

It’s possible to filter on every column with info of the Control. First choose a column you want to filter on (see “B” figure 62) and then fill the value you want to search on. When this is done, click ‘Add value’(see “C” figure 62). After the value has been added, click on ‘Apply configuration’ (see “D” figure 61) to search with the add filters.

It is also possible to arrange the columns you want to see. Choose ‘Table configuration’ (see “A” figure 63) to setup your workspace with your own preferences.

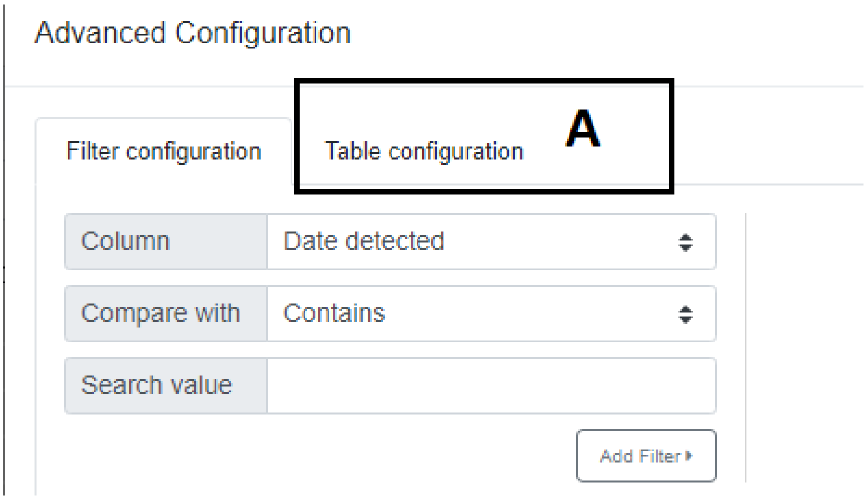


Figure 59 Table Configuration

Table configuration is possible by dragging a field type to the place you want to see it on your Workspace (see "A" figure 64). It is also possible to hide a field by clicking on it, you can see the field change to 'Hidden 'Headers' (see "B" figure 64). When you have the right order of active columns click on 'Apply configuration' (see "C" figure 64). After this the Workspace will change to your preferences.

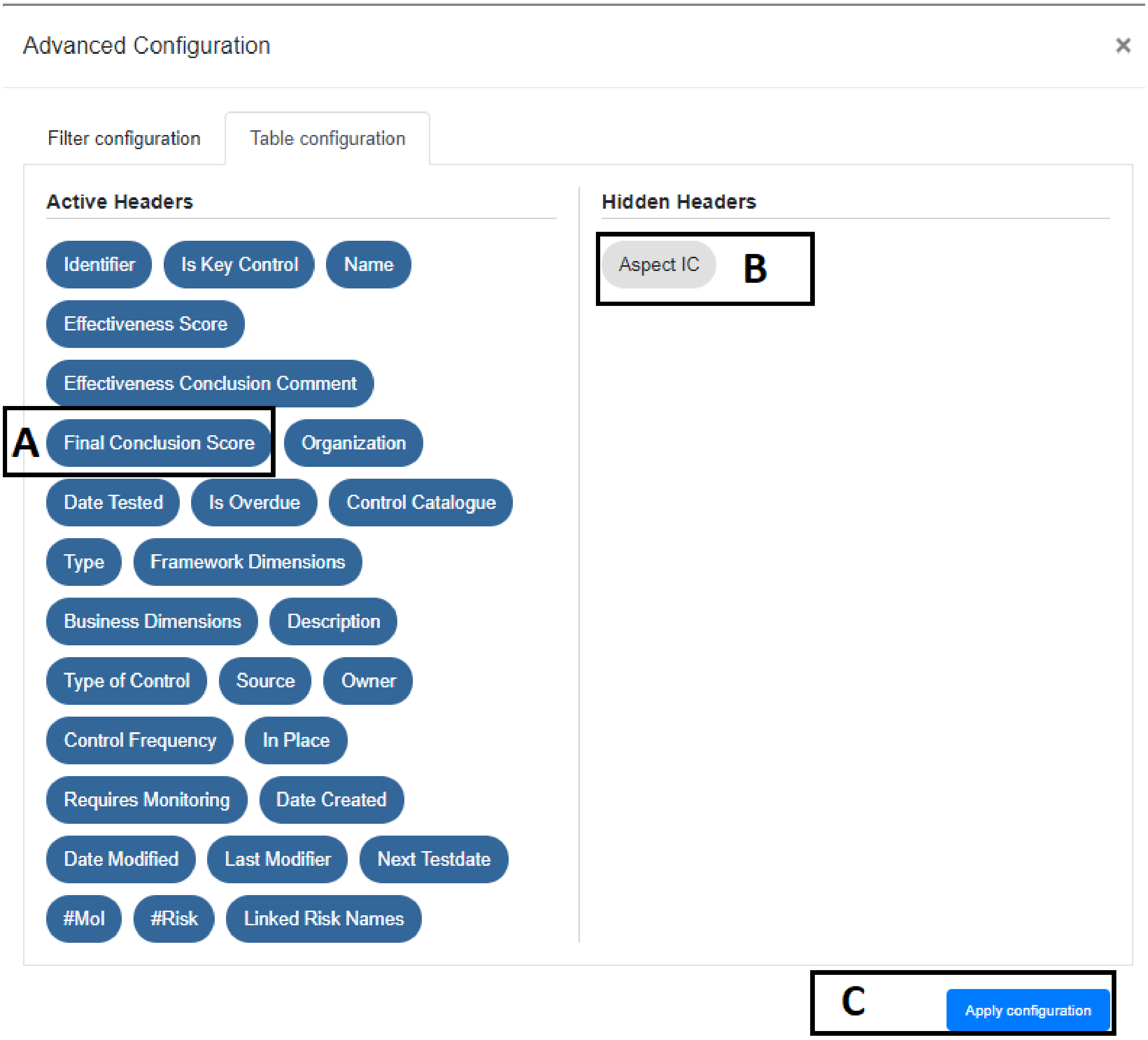


Figure 60 Table Configuration setup

When an item of the overview is selected (double click) the grid and the bottom of the screen will change to an overview list with more detailed information.

5.1 Copy Test Plan

The Copy Test plan functionality is developed so that an entire yearly test planning can be copied to the following year. This saves the control test plan creators a lot of time.

The Copy test plan functionality is available via the control workspace (see "A" figure 65). Filters used in the Controls Workspace will be applied in the Copy Test plan screen. Before starting Copy Test plan, be sure the right organization, business dimensions, framework dimension or control owner filters are selected.

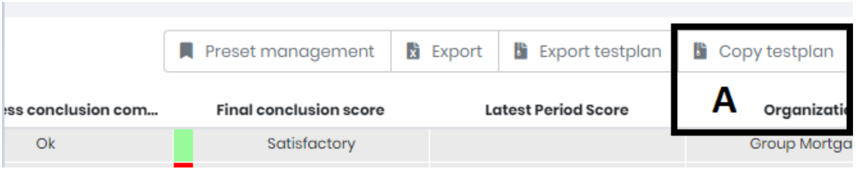


Figure 61 Copy Test plan Workspace

When the Copy test plan functionality is opened the following screens opens (See figure 66). In this screen the following controls are shown:

- Only the controls with effectiveness test plans
- Only test plans linked to a test period (initial test period is not shown)
- Per control only the test plans of the latest test period

All the test plans are checked which means all effectiveness test plan will be copied. There are several ways to select or deselect test plans, so the user is flexible in test plans that must be copied. It is possible to select or deselect test plans per control (see "A" figure 66). You can also choose to select or deselect all test plans per control (see "B" figure 66). The last option is to select or deselect all test plans from all controls (see "C" figure 66).

The filters that are available are the same as in the Export Test plan screen. This means a user can filter on:

- Start and end date
- Test status
- Test period
- Overdue yes/no
- Test roles

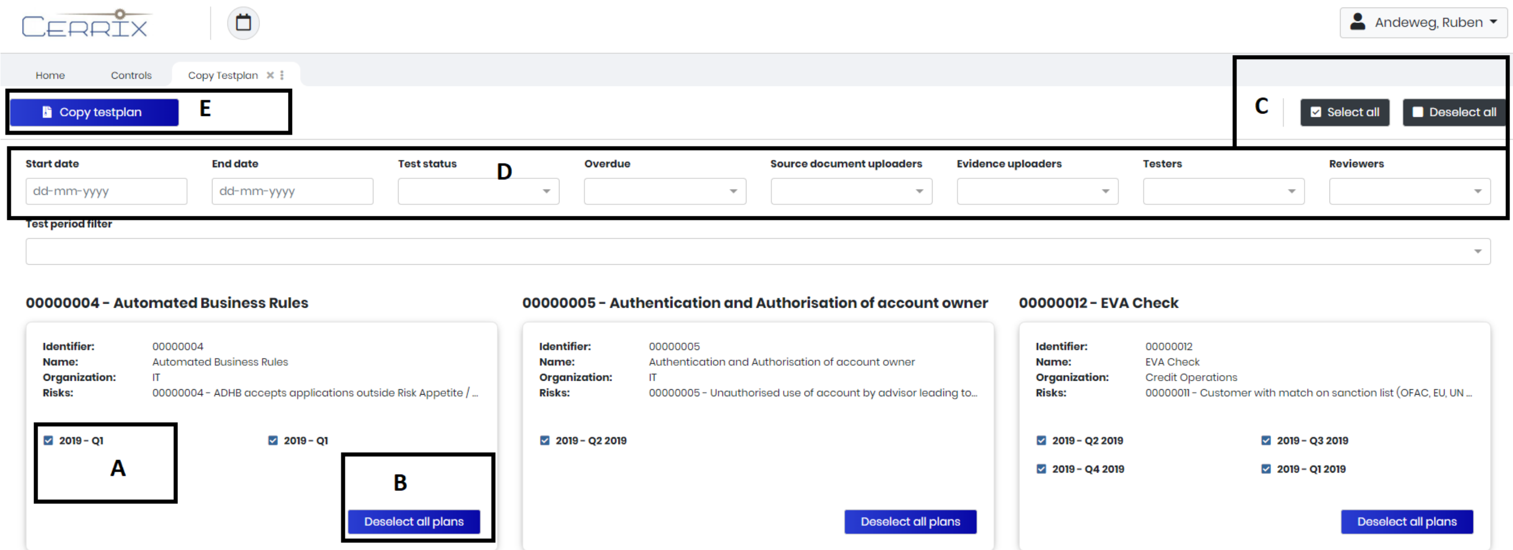


Figure 62 Copy Test plan

5.1.1 Copying test plans

When the right test plans are chosen the test plans can be copied by using the **'Copy test plan'**-button (see "E" figure 66).

When 'Copy Test plan' is chosen, CERRIX will ask to fill a name for the next period (see figure 67).

Figure 63 New period name

Filling a new test period name will create a new test period with the same name for all selected controls. All linked test plans will be copied to the new added period.

When this execution is completed, the new period and test plans are heightened up with **one year** for the following dates

- Start and end date of test period
- Start and end date of test plans
- Due dates of test plans.

Example

We will explain the functionality with an example.

In this example control 4 – Automated Business Rules has one test plan in the period 2019 (see figure 68).

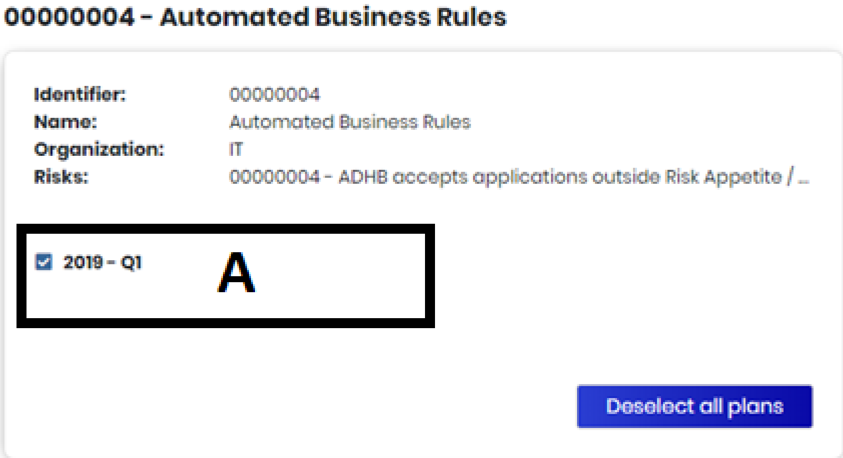


Figure 64 Selected test plan

The test plan that will be copied is 2019 – Q1. '2019' is the latest test period and the test plan name is 'Q1' (see "A "figure 68).

Because the old period was 2019, the new period will get the name 2020. When the user chooses the "OK"-button the new period will be added (see figure 69).

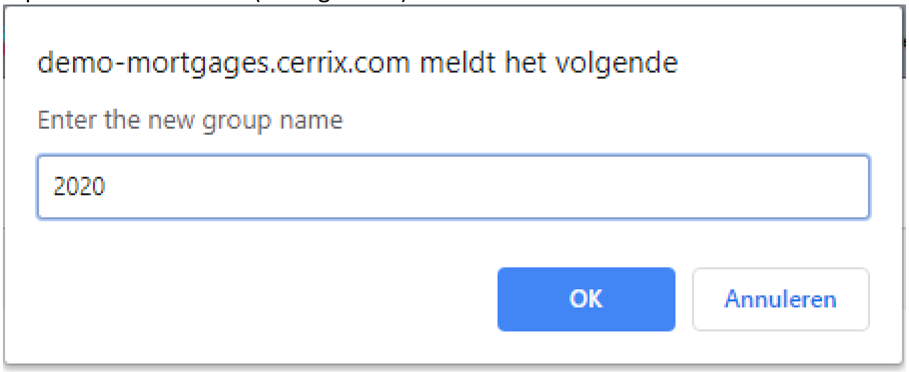


Figure 65 Add new Test period

The new period will be exactly one year after the latest selected period per control (see figure 70).

2019 *2020*

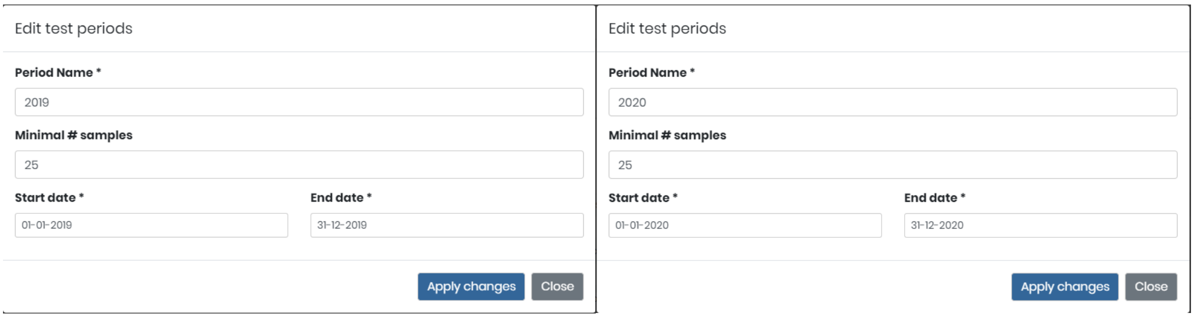


Figure 66 Old and new Test periods

The new test plan is added within the new period and has the same name as the previous test plan (see "A" figure 69). And the new testing period is one year later (see "B" figure 69). A newly added test plan has the status 'upload source documents' (see "C" figure 69).

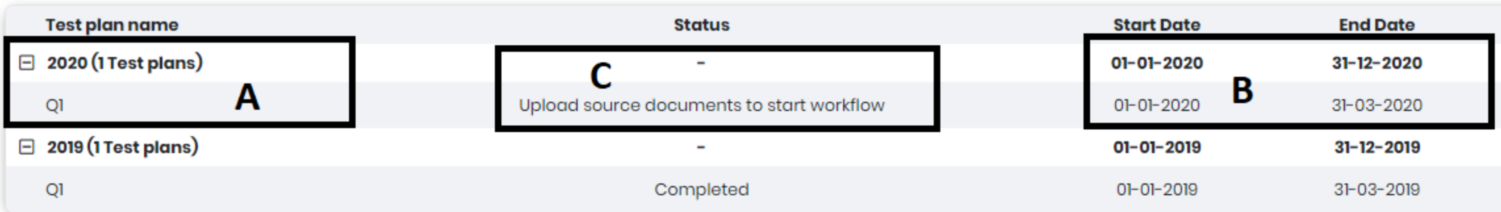
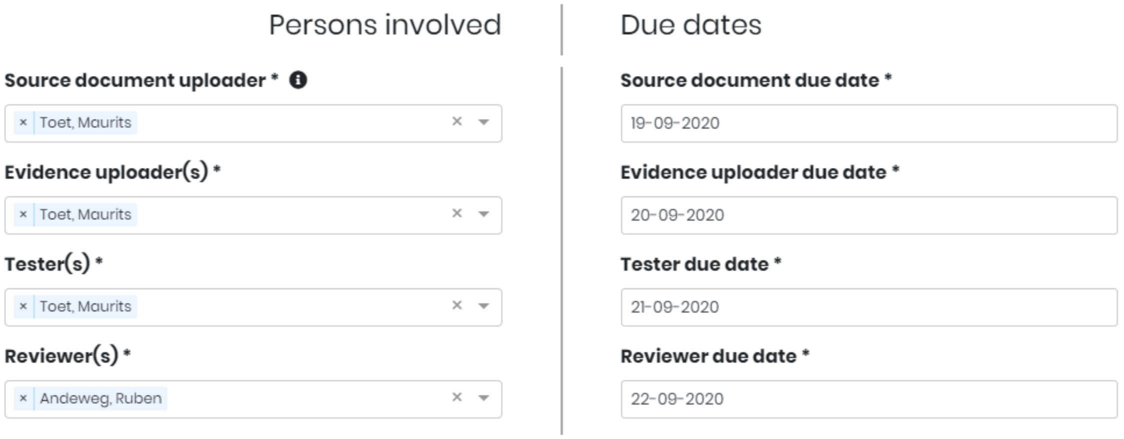


Figure 67 New test plan

The due dates of the test plans are also one year later than the old test plan (see figure 72). Because the new test plan has the status 'upload source documents', the due dates can still be changed as well as the other parts of the test plan.

2019



2020

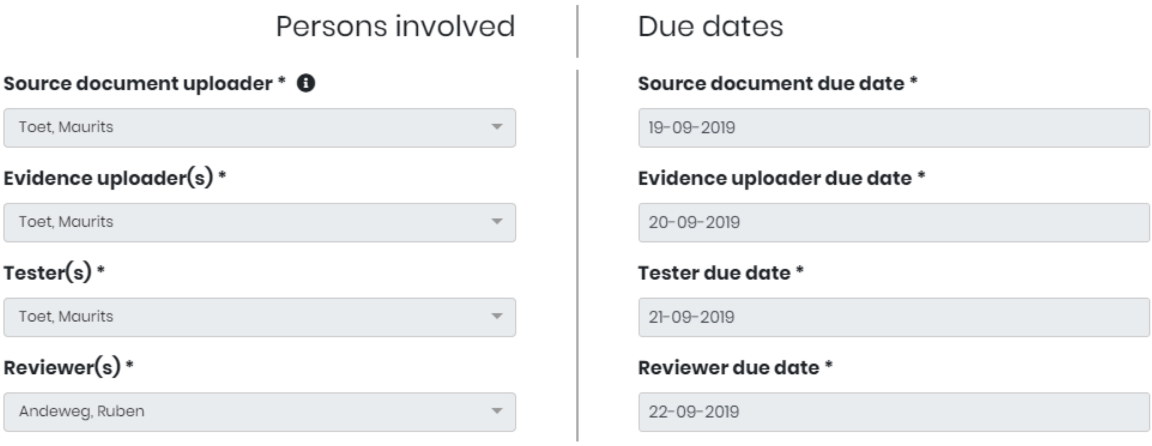


Figure 68: Involved persons and Due dates

5.2.2 Constrains(!)

- Test plans cannot be copied if they are linked to an Initial test period
- Only test plan of the latest test periods can be copied
- Test plans can only be copied to the following year
- Test plan names will be duplicated

5.2 Export Test Plan

Export Test plan is a functionality that has been developed for exporting all test results and evidence of effectiveness test plans.

The Copy test plan functionality is available via the control workspace (see “A” figure 73). Filters used in the Controls Workspace will be applied in the Export Test plan screen. Before starting Export Test plan, be sure the right organization, business dimensions, framework dimension or control owner filters are selected.

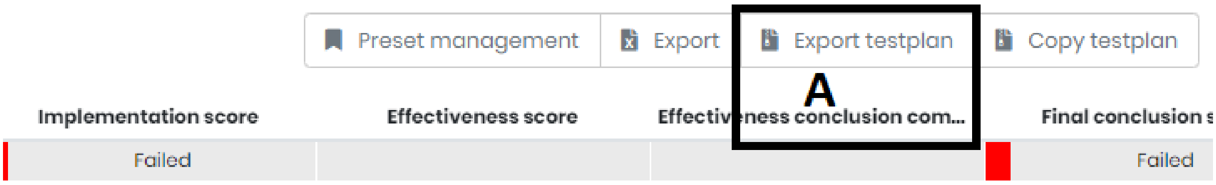


Figure 69: Export test plan Workspace

There are two differences in the Export Test plan screen from the Copy test plan screen when using the filters. There is no filter for periods. The other difference is that in Export Test plan the user can choose to export test data of the D&I module and Control MoI as well (see “A” figure 74).

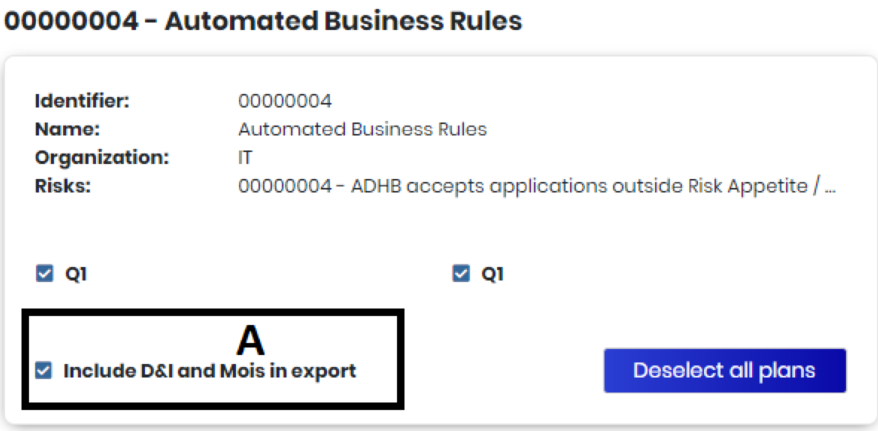


Figure 70: Export test plan selection

5.2.1 Exporting test plans

When the right selection is made, the user has two options to export test data. The first option is ‘Export data’ (see “A” figure 75). With this export a Excel file is composed with all test data. This Excel can be downloaded immediately.

The other option is ‘Export data & evidence’ (see “B” figure 75). **Please note: Export Data & Evidence is only available when there is sFTP-connection to your organization.** When exporting data & evidence all evidence of the selected test plans will be placed on a determined internal server. This will be arranged by the IT department.

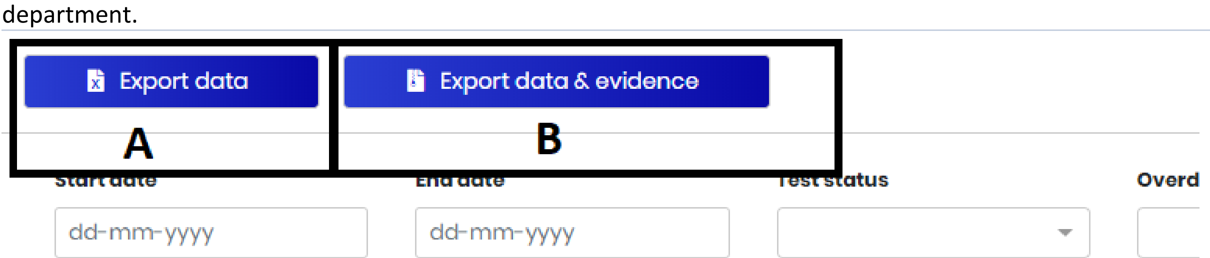


Figure 71: Export test plan options

When the ‘**export data & evidence**’ button is chosen the user can go to the specific folder to see what evidence is downloaded. In this folder all control IDs and control names are shown combined with the Excel file (see figure 76)

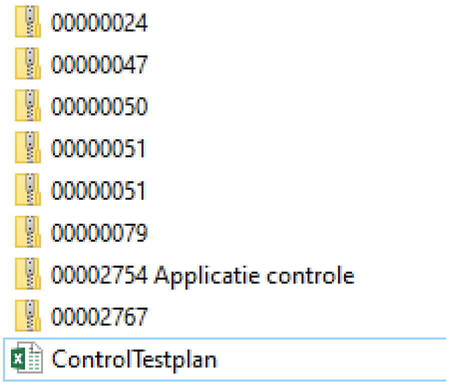


Figure 72: Exported Controls

Within every control there are maps for every level of the test plan. The highest level is the control, the bottom level is a test step. Following the levels within a control:

- *Control*
  - *Test Period*
    - *Test plan*
      - *Sample*
        - *Test step*

In the following example you can see all the maps within a control. Evidence per sample will be added in the map ‘Sample’. Evidence added per test step are located per test step.

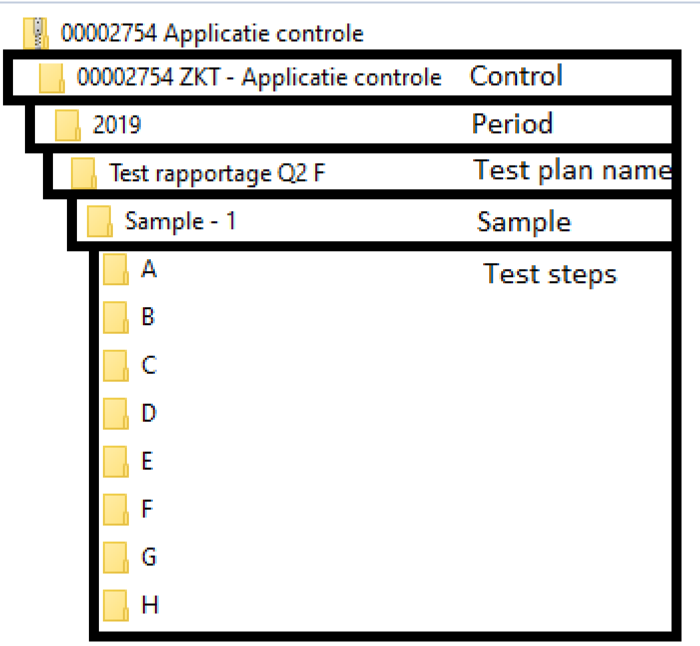


Figure 73: Exported test plan

7 Settings

To enable reviewers for effectiveness testing, the application administrator must go to *settings* on the bottom of the home page (see figure 79).

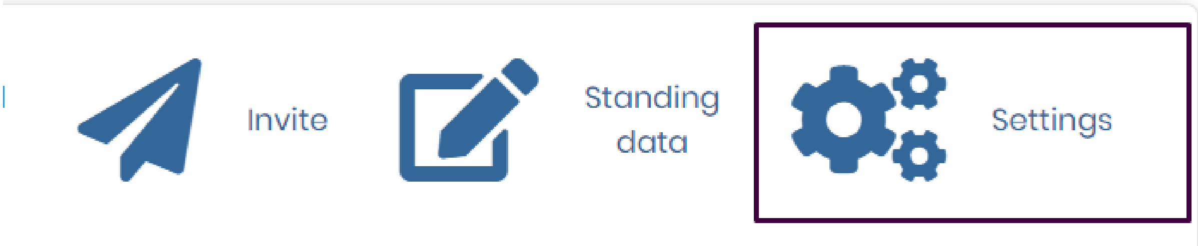


Figure 74: Settings

The following screen opens.

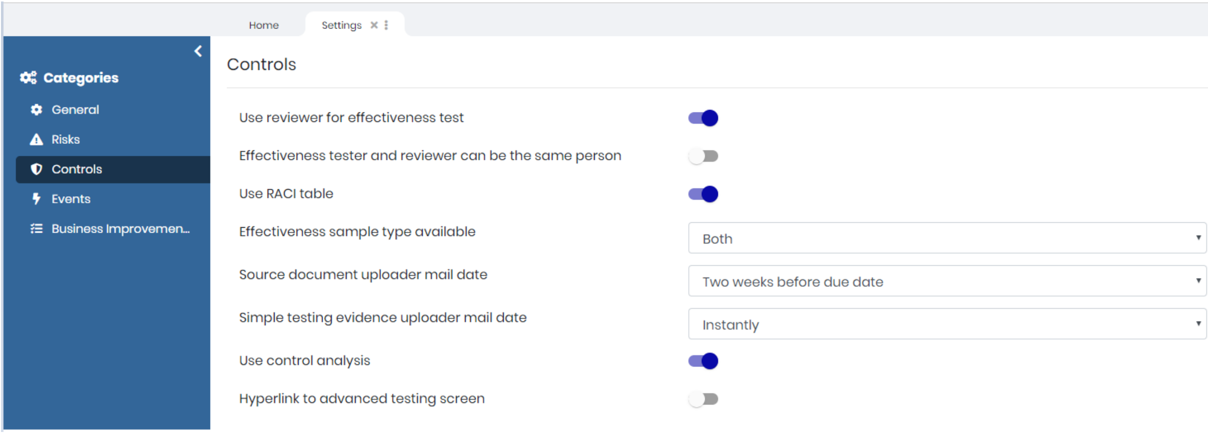


Figure 75: Controls Settings

In the Settings page, there are 8 options for the Control module:

1. *Use reviewer for effectiveness test;*

With this option, the reviewer can be used in advanced effectiveness test plans.

2. *Effectiveness tester and reviewer can be the same person*

When this option is enabled, the tester and the reviewer can be the same user.

3. Use RACI table

The RACI table is used in the Control details screen. The responsible, accountable, consulted and informed can be selected in this table.

4. Effectiveness sample type available

When creating a test plan, there are two options for generating samples. By adjusting this setting, test plan creators can be forced to select number or date samples. If the option 'Both' is selected, the test plan creator is free to choose date and number samples.

5. Source document uploader mail date

When a new test plan is added the source document uploader will receive an e-mail about this test plan. With this setting the application admin can determine when this e-mail should be sent. E.g. when the test plan has been executed after 6 months.

6. Simple testing evidence uploader mail date

Here the application admin can determine when the e-mail should be sent to the evidence uploader. This works the same as the previous setting.

7. Use control analysis

Control analysis is a paragraph within the Controls module with a comment section, Conclusion summary and costs section. If this paragraph isn't used it can be turned off by using the toggle.

8. Hyperlink to Controls Effectiveness Advanced Testing screen

For Control Effectiveness Advanced Testing there are two screens. The regular testing screen and a 'first line screen' (see paragraph 4.2.2.4). When this toggle is turned on, the hyperlink in e-mail and agenda will redirect the user to the regular testing screen (see paragraph 4.2.2.3).

8 Mail Messages

For Controls Testing Mail Messages can be set. For every status a mail can, be sent to the next user assigned in the workflow. Mail Messages are explained in the Standing Data manual.