

.Interpret sources and model frames v1

On this page we explore the defining of frames and their components as modeled interpretations.

The next stage after annotations is to capture the actual interpretations. This typically comes down to detailing the broad annotations made in the previous stage. The focus in the UI will switch from annotation centric to interpretation centric. Since all references to the source of norms are captured automatically, users can focus on capturing the additional details and explicit interpretations.

Annotating, interpreting and modeling is often an iterative process, not a linear one. As with a lot of knowledge intensive work, you will gain insight and understanding while working on an interpretation project. This will entail adding, editing or removing annotations, sources and frames. All the while working towards the desired model.

On this page:

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Workbench Modeling layout

The screenshot displays the FLINT Workbench Modeling layout, which is divided into three main sections. The left section shows a source document titled "Government directive for..." with annotations (1-8) and a table of contents. The middle section shows the "Private manager" frame (11) with its properties (12) and validity periods (13). The right section shows a list of frames (14) for the "Private manager" type.

1. Project overview | 2. Annotate | 3. Modeling | 4. Review

1. Government directive for... | 2. Sources | 3. Agent Overview | 4. Context | 5. Conversation | 6. Warnings | 7. History | 8. Agents

9. The private lending library has a non-commercial character.

10. 3. Registration and Accountability

11. The private manager must submit an application to the municipality. This application concerns the ability to manage a private lending library facility.

12. This application submission requirements: The private lending library at home located within the municipal boundaries and the collection must cover at least 500 books.

13. After permission, a report is submitted annually on activities, visitor numbers and collection development.

14. 4. Public functions

15. The library must demonstrably contribute to at least three of the five societal functions:

1. Providing access to knowledge and information
2. Promoting development and education
3. Encourage reading
4. Organising meetings and debates
5. Exposure to art and culture

16. 5. Accessibility and inclusion

17. The library must comply with the basic principles of independence.

18. Private manager

19. Properties

20. Name: Private manager

21. Explanation: A person who manages (or intends to manage) a private lending library facility from home.

22. State: In progress

23. Validity periods

24. No validity periods available

25. Related term

Docket name	Name	Definition
Opening a private lending library at home	Private manager	A person who manages (or intends to manage) a private lending library facility from home.

26. Source references

27. section-1-3

28. GovernmentDictates

The screen is divided in 3 sections:

- Annotation column: The source with its visual annotation and frame indication.
- Frame column: The Frame modeling.
- Frame list column: The current Docket frames for a chosen type in a list.

In the left column you can see and do several things related to the Docket sources and their annotations. The most recent source is shown by default.

- 1) Here you can open the Table of contents of this Source and navigate to specific sections.
- 2) This dropdown can be used to switch to other Sources of norms if available.
- 3) This dropdown allows you to change the annotation- and frame types which are visible in the text.

- 4) This button activates 'Focus' mode, removing the main menu and footer so there is more room for the modeling interface.
- 5) The frame currently opened in the frame column is shown as fully colored in the annotation column (like "You can check out books using the self-issue machine" in the image above).
- 6) When you mouseover any marked text a popup appears displaying its annotation or frame type.
- 7/8) When a text fragment is fully underlined it indicates it is a frame. A dotted underline indicates it is just an annotation.
- 9) Clickable location indicators in the scrollbar indicate the presence of annotations, where they are (globally) located in the text and of which type they are. You can mouseover these lines to see the section and text.

Tip: Sometimes you want to select a piece of text that is already part of an annotation or of a frame. This will be rather difficult unless you press the SHIFT-key on your keyboard when selecting the text.

- 10) The default view of a Frame is its overview. This overview has the following segments:
- 11) The properties of the frame, such as its current state and its explanation or description.
- 12) The option to update the properties of the frame or delete it. Delete will open a popup for confirmation.
- 13) The components of the frame. This can differ between different types of frame. For example, for a Fact this can be the underlying conditions that make the Fact true (in the form of Boolean functions).
- 14) The Source of this frame. This is a persistent link to the text from which this frame is derived. The clickable link shows the source document's identifier followed by the (sub)segment(s) structure where the text can be found, divided by underscores. Clicking on it will open the correct source and / or jump to the relevant text fragment. You can relate another source (segment) to this frame by dragging and dropping the relevant text fragment.

In the example below the source identifier is UULLR001, and the frame is related to a text in the subsection 'Borrowing', paragraph 3.

Sources

UULLR001_borrowing_3

UULLR001

- 15) The Context tab displays the incoming relations for the opened frame. The types of incoming relations that can be shown differs between frame types.

Fact overviewContextConversationHistory

→| Has function(s)

Proposition	Type	Name
Implied by	Fact	You can check out books using the self-issue machine
Implied by	Fact	You can ask permission to borrow more books temporarily. Fill in this form or ask at the service desk

→| Is precondition for

Name	Type
Borrowing	Act

- 16) In the Conversation tab team members can leave messages or responses concerning this frame. Note that when finalizing a bundle you have the option to include these conversations. They can be informative in the context of explainability. However, do keep in mind that (depending on its use and distribution) the bundle and thus the conversation may travel far and wide to unexpected audiences.

Fact overview
Context
Conversation
History

Conversation

Steven Taylor • 1 day ago

Hmmmm, should we consider this its own condition or only consider the actual underlying criteria?

Also relevant for how we tackle the Fines act / project

Reply

17) The 'Warnings' tab indicates whether all mandatory elements of a frame are complete.

Legal relationship overview
Context
Conversation
Warnings
History

Frame warnings

Warning	Date triggered	Triggered by
Concept 'Legal relationship' does not have minimal 1 outgoing relation of type 'hasClaimant' to concept of type 'Legal subject'	10-06-2026	Stephen Taylor

18) The History tab shows all the events concerning this frame, from its creation, property updates and conversations, to changes to its components.

Fact overview
Context
Conversation
History

History

Event type	Date/time occurred	User
Create message	11-02-2026 08:42	Steven Taylor
Create condition set	11-02-2026 08:38	Elly Wang
Update status to in progress	11-02-2026 08:38	Elly Wang
Create condition set	11-02-2026 08:38	Elly Wang

19) You can close the currently shown Frame by clicking on this x.

20) This dropdown can be used to show a list of all Docket frames of a certain type. You can open a frame by clicking on it. You can also drag a frame to a relevant component slot in the Frame column.

21) With this search field you can filter the currently shown list for a specific word or phrase.

22) You can change the width of the three columns by dragging this slider.

23) This icon in the upper left corner represents the return link to the Docket overview.

Creating a new frame

When the Frame column is empty (by default or after clicking the x on a shown frame) you can create a new frame by:

- dragging an annotation to the empty Frame column; or

- selecting a completely new text fragment and then dragging it to the Frame column.

Keep in mind that an annotation (underdotted text) is just a visual support. It has no role except to *indicate* to the norm engineer what might be useful as a frame. You can ignore annotations if you disagree with the indication. You can also select a different text which hasn't been annotated to create a frame if you think it better suits your interpretation.

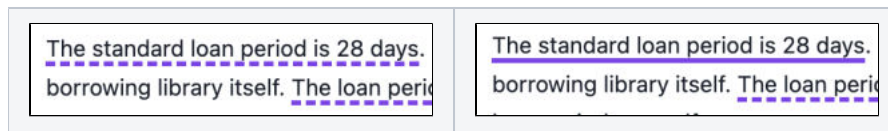
After dragging a text fragment to the Frame column you can define its name and its type. If you dragged an existing annotation its type will be preselected.

After creating the new frame its Source section will show a clickable link to the text fragment it is based on.

By default, the name of a new frame is equal to the selected text. You can rewrite this name to improve comprehension, both for the frame itself and all the places where the frame will be shown (for example as a component or in a list).

Note how after an existing annotation is designated as an actual frame, its visualization will change. An undefined text fragment (an annotation) is underdotted. A defined text fragment (a frame) is underlined.

The purple underdotted text has been annotated / marked as a possible Fact. After creating a Fact frame from it, it becomes purple underlined.



Creating a frame by dragging undefined text to a component slot

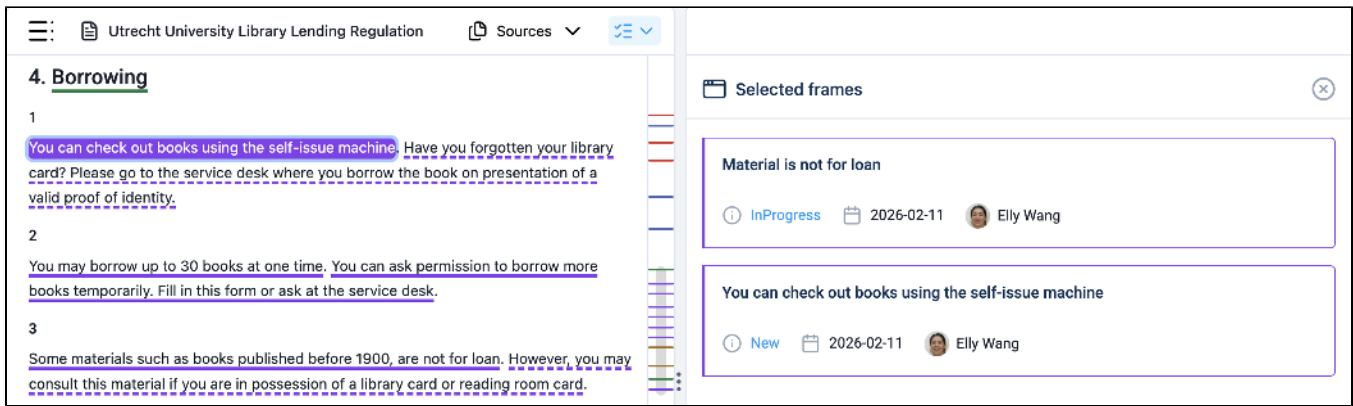
When you drag an annotated text which has not been designated as a frame yet (underdotted) into a component slot of a frame, it may *become* a frame, depending on the component slot. For example, if you drag an undefined text fragment to the Actor component slot of an Act frame, you are also creating an Actor frame. This Actor frame will then become available in the Frames list.

Selecting a specific frame

You can open a frame in the Frame column by either:

- clicking a frame in the Annotation column; or
- clicking a frame in the Frame list column.

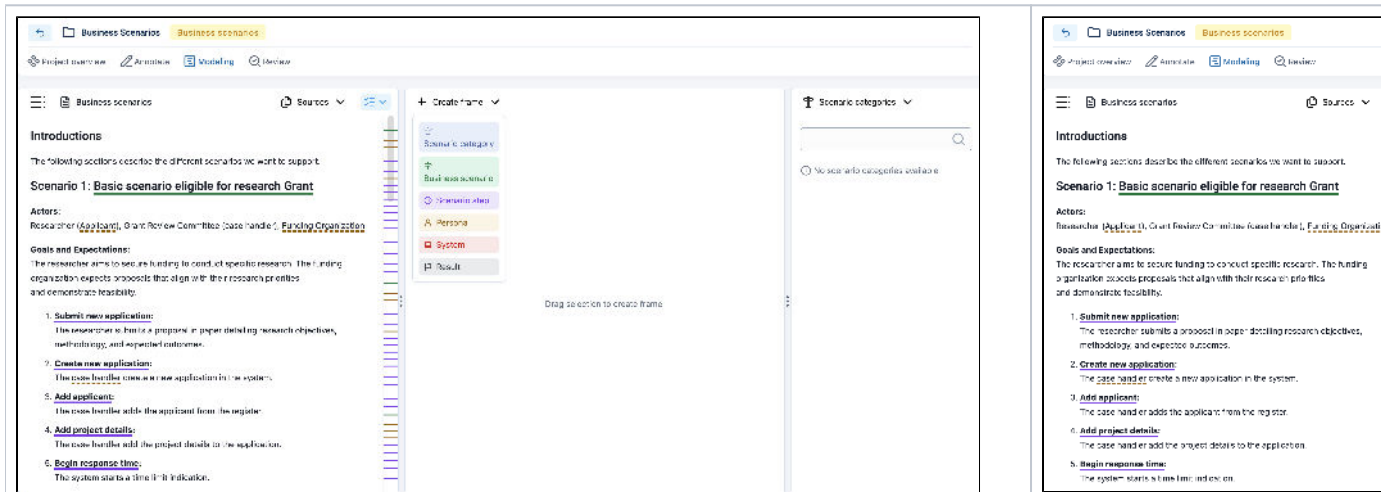
Sometimes multiple frames are created by the same text phrase. These can be of the same frame type or different frame types. In the example below the phrase 'You can check out books using the self-issue machine' leads to the modeling of two facts. After clicking on the frame text, the Modeling column will show the options. You can choose which one you want to open.



Creating a new frame without a source reference

Besides creating frames based upon the source reference, it is also possible to create a new frame without first selecting a text fragment. The relation to a source can be added later, if at all. This functionality also supports situations where there is no clear source but a particular frame is still needed.

On top of the empty frame column you will find the "+ Create frame" button. This allows you to create the different frame types supported by the DSL.



Select a frame type and a create frame form opens. Fill in the details and click the Create button at the bottom of the form.

Defining and modeling a frame

When a frame is selected, its details are shown in the Modeling column. Each frame has specific components according to the underlying DSL and the frame type.

You can edit a frame component by:

- clicking Update or +Add;
- drag Frames from the Frames list column into a component slot;
- drag a text fragment from the Annotation column into a component slot. If the dragged text wasn't already a frame it may *become* a frame, depending on the component slot.

Action

Lending to

Actor

Utrecht University Library

Update

Update

When clicking 'Update' a popup will open where you can search for and change the current component to another of the same type.

The first popup after clicking 'Update' allows you to remove the current component by clicking x and then searching for the correct component by name or text string.

Update actor

Select actor from full list

Utrecht University Library

...

Cancel

Finish

You can also click the three dots (...) which opens another popup where you can select from a list. This list can be filtered by entering a text string on the left.

Select related Agents

Selected:

Utrecht University Library

Agents list

	Name
☒	Utrecht University Library
☐	Borrower
☐	Utrecht University students

Agent name

Close

Select

By designating specific frames and then assigning other frames as their components, you are creating concepts and relations. A Docket will eventually contain a model of the rules relevant to its goal. This can be exported as a bundle and imported in, for instance, the Be Informed Studio, ready to be reasoned across as part of a service or application.

Deleting a frame

You can delete a frame by clicking the Delete button at the top of the frame. A popup will appear in which you have to confirm the deletion. After deletion the text fragment may still appear as marked; this will disappear after refreshing the modeling view.

Keep in mind that deleting a component does not delete the related frame.

Further reading

- [Dockets](#)
- [Docket projects](#)
- [Annotating sources](#)
- [Review modeled frames](#)
- [Finalize and export frame bundles](#)