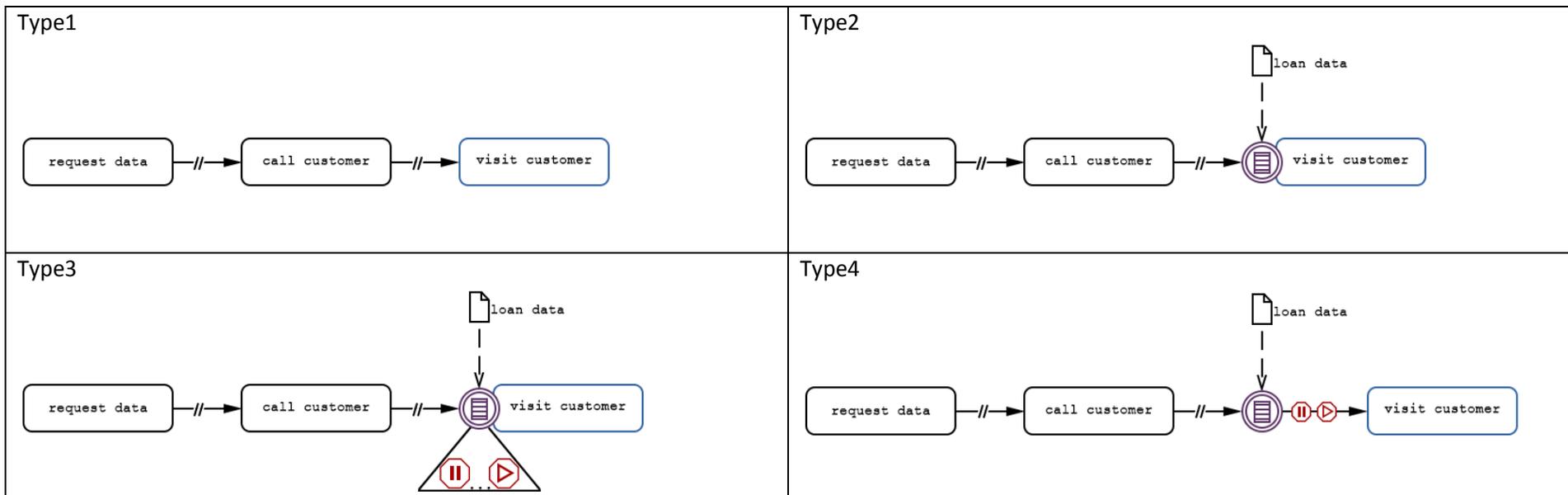


General introduction

Instance spanning constraints deal with rules spanning multiple instances and or processes. In the following survey we will show you 4 types of visualizations. Each type offers another level of detail. Your task is to select the most appropriate type.

Survey limitations

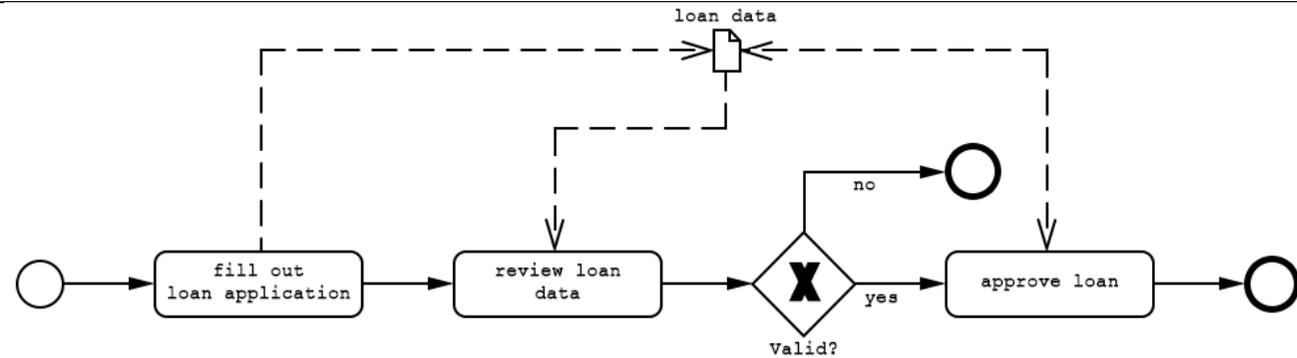
You will see and rate many visualizations of compliance rules during the survey. Please keep in mind that we are limited in space. In real world such constraints will consist of more than one activity. Here is an example for each visualization type:



Example

Process description

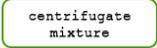
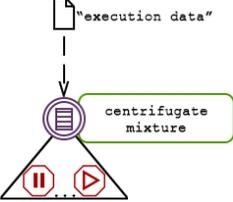
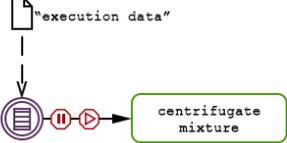
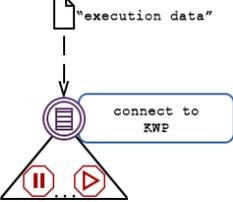
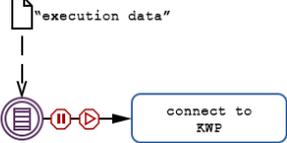
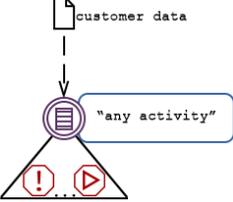
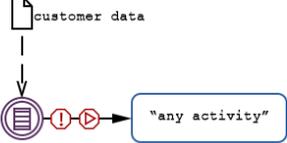
An employee has to fill out a loan application for the customer. The data is stored in the database. After this the data is reviewed and checked for validity. If the data is not valid the process is finished. If the data is valid the loan gets approved.



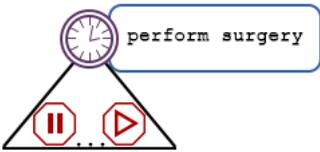
The Activity Color (Green/Blue) states the spanning part, the trigger (Purple) if there is some checking i.e. a condition or some time constraint and the action (Red) what happens if the trigger is true.

Constraint Description	Type 1	Type 2	Type 3	Type 4
If the total loan amount among all instances exceed \$ 1 million per day wait before „approve loan” is executed.	[green= constraint spanning multiple instances] 	[purple = trigger] 	[red = action] 	
Alert the user if the same customer applies for a loan within one week.		 	 	
Stop before the execution of an activity if the amount of user activities exceeds 100 per day. (Rule applies to all processes.)	[blue= constraint spanning multiple processes] 	 	 	

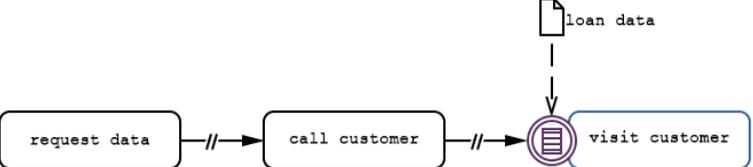
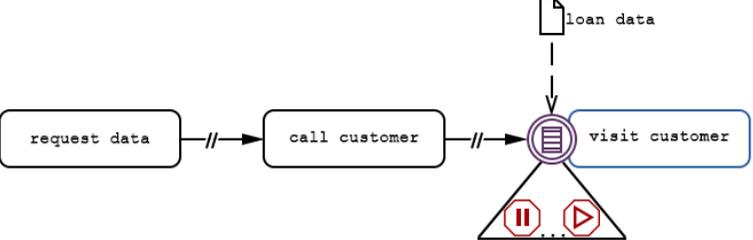
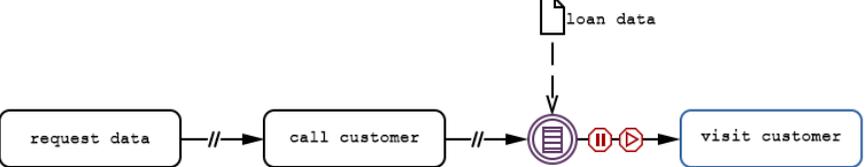
Select your preferred visualization for each constraint.

Constraint	Type 1	Type 2	Type 3	Type 4
Wait until centrifuge is full.	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>
The number of KWP connections shall not exceed 10.	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>
Due to monthly payment all instances of all processes will be set on hold.	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>

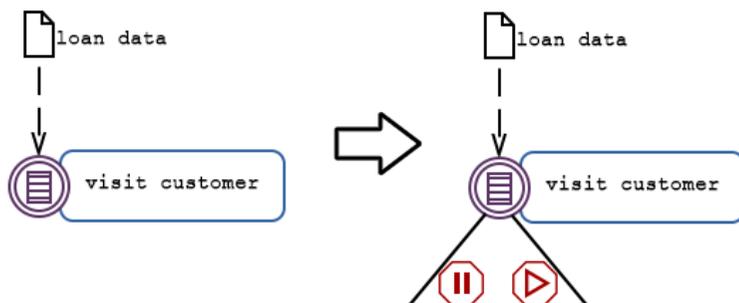
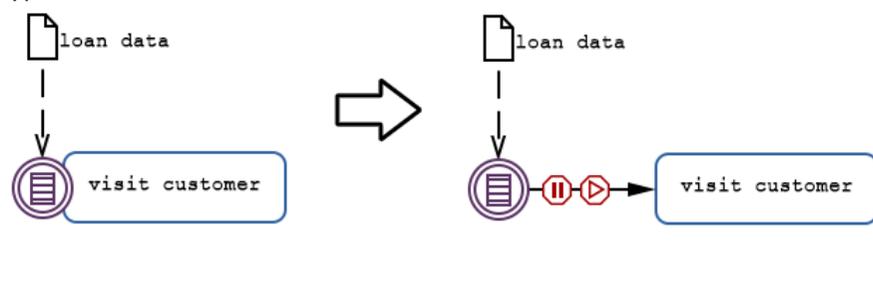
Based on the visualization mark the most appropriate constraint. (Please mark only 1)

 <p>perform surgery</p>	<ul style="list-style-type: none"> ○ All surgeries where the patient data is inconsistent will be performed later. ○ All surgeries with similar disease will be performed at 8 am and 4 pm. ○ A surgery is performed for each patient ○ When a surgery is performed the patient data is updated.
 <p>transport goods</p>	<ul style="list-style-type: none"> ○ All goods that arrived at the same time will be transported together ○ When transporting goods multiple goods for the same destination are packed together. When there are similar goods arriving soon we will wait for them. ○ An alert is sent each time a good gets damaged during transportation. ○ A good is transported back to the customer if the good was damaged.
 <p>approve article</p>	<ul style="list-style-type: none"> ○ Before approving an article a place in the current newspaper has to be found. If no place is found the article is delayed to the next day with higher priority. ○ An alert is sent each time an article violates one of the restricted words from the “Bad Words” list. ○ An employee is not allowed to approve more than 5 articles. ○ Over all processes an employee is only allowed to approve 5 articles.
 <p>administer medication</p>	<ul style="list-style-type: none"> ○ Every time medication is administered a data element is read if there is a problem the administration is canceled. ○ Before medication is administered an alert is sent if another process has administered the same medication. ○ Medication can only be administered between 8 am and 4 pm. ○ Before medication is administered, the medication prescribed in other processes is checked and if there is any medication an alert is given to the user.

Ranking which type is preferred. (1 = best, 2,3,4)

Types	Ranking
 <pre> graph LR A[request data] --> B[call customer] B --> C[visit customer] style C stroke:#0000FF </pre>	
 <pre> graph TD A[request data] --> B[call customer] B --> C[visit customer] D[loan data] --> C style C stroke:#0000FF </pre>	
 <pre> graph TD A[request data] --> B[call customer] B --> C[visit customer] D[loan data] --> C E[] --- C style E fill:#FF0000,stroke:#FF0000,stroke-width:2px </pre>	
 <pre> graph LR A[request data] --> B[call customer] B --> C[visit customer] D[loan data] --> C E[] --- B style E fill:#FF0000,stroke:#FF0000,stroke-width:2px </pre>	

Would you prefer an animation for type 3 and/or 4? For example type 2 is visualized and when the trigger (violet) is clicked type 3/4 get visible.

<p>Type 2 -> 3</p> 	<p>Type 2 -> 4</p> 
<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no

An activity with a green border expresses what?

- Instance spanning
 Process spanning
 Nothing
 Intra spanning

How confident are you when dealing with process models? (Rating from 1 to 7)

1 expert						7 Process model?
<input type="checkbox"/>						

Any comments? Feedback? Improvements?

Demographic data

What is your age?

- Under 25 years old
- 25 – 26 years old
- 27 – 29 years old
- 29 – 31 years old
- 31 years or older

Employment Status: Are you currently ...? (Multiple possible)

- Employed for wages
- Self-employed
- Out of work and looking for work
- Student
- Retired
- Other [_____]

To which gender identity to you most identify?

- Female
- Male
- Transgender Female
- Transgender Male
- Gender Variant/Non-Conforming
- Not Listed [_____]
- Prefer Not to Answer