Digitalization of Czech government

Seizure proceedings

7. January 2020 Semestral work report for MI-MEP on CTU FIT Matěj Schuh, Šimon Urbánek

Introduction

In this project, we will look at the theme of digitization of Czech government focused on seizure proceedings. We will study Czech law about seizure proceedings and will analyze ontological transactions in a detailed explanation of the law. Then we will try to interpret gathered information to DEMO models. After performing this task, we will try to implement application supporting this process. The contents of the document are presented on this short video (2 mins).

Table of contents

Introduction	1
Table of contents	1
Analytical part	2
Description of the domain	2
Transactions identification	3
Organization essence revealing	3
Identified transactions	4
Transaction tables	4
Models	5
TPT	5
OCD	6
PSD	7
OFD	8
Actor mapping	9
Practical Part	10
Process in Signavio	10
Seizure proceedings proposal rejected	10
Seizure paid in given time	10
Seizure not paid in given time & end	10
Application presentation	11
Analytics	11

Conclusion 12

Analytical part

In this chapter, we are focusing on analytical part of our project.

Description of the domain

Seizure proceeding is a process started by the creditor, who wonned some lawsuit, which imposes of obligation to pay some sum by debtor, but the debtor hadn't paid the sum in period stated in lawsuit.

Seizure proceedings needs to be authorized to be leaded, afterwards the seizure leader informs the debtor about the debted sum, and gives another period (30 days) to make a payment or revoke the lawsuit means. If is the debted sum paid in mentioned period, costs of seizure are lowered and seizure proceedings ends.

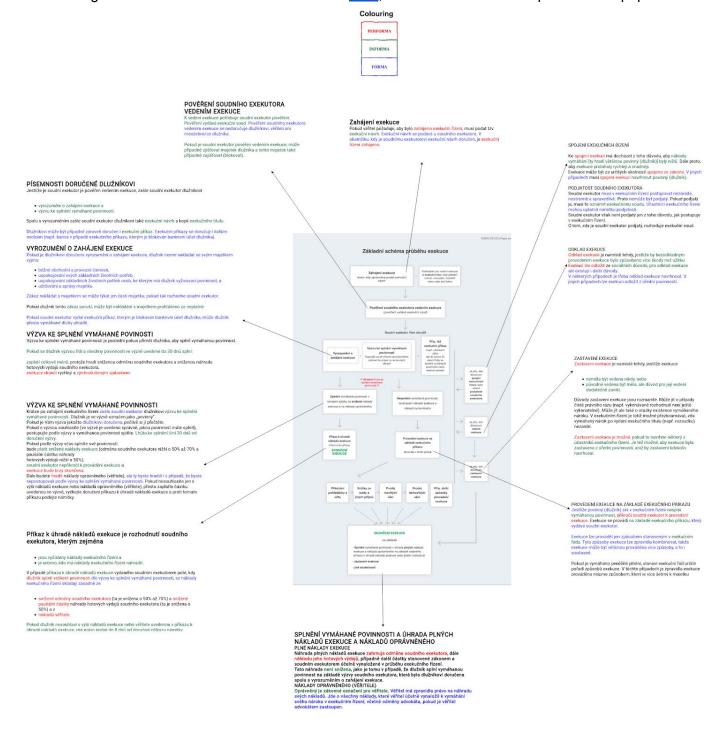
However, the debtor does not have to comply with the request. If period of thirty day expires, seizure execution starts. This could be performed by various actions in various order, accordingly to the debtor situation. After seizure execution is completed, seizure proceeding also ends.

There are also other smaller processes, which we intentionally did not mentioned to keep the description short. More about seizure proceeding including flow diagram could be found on czech source.

Transactions identification

Organization essence revealing

We used flow diagram from official source and substantial parts from detailed explanation of each step in the process and analyze transactions in original texts (in czech). Original diagram outcome from this could be found here, since we have limited space on this paper.



Identified transactions

After this identification, we created the following table, which will be used for OCD model / TPT means. The origin of table could be found in this <u>spreadsheet</u> in list named "TPT/OCD preparation".

Initiator	Transaction	Executioner			
Seizure initiator	T1: Seizure proceedings	Seizure leader			
Seizure leader	T2: Seizure lead authorization	Seizure jurisdicturer			
Seizure leader	T3: Call to meet enforcement obligations Seizure causer				
	"Good way"				
Seizure causer	T4: Seizure costs payment	Seizure leader			
	"Bad way"				
Seizure leader	T5: Seizure execution	Seizure execution completer			
Seizure execution completer	T6: Payment withdraw from a bank account	Account provider			
Seizure execution completer	T7: Wage deduction	Seizure execution completer			
Seizure execution completer	T8: Property sale	Purchaser			
Seizure execution completer	T9: Estate sale	Purchaser			
	"Others"				
Seizure merging proposer	T10: Seizures merging	Seizure merging approver			

Transaction tables

For each transaction found in previous chapter we also described each act. Since pasting those tables here would mess this document, all of them are specified in lists of mentioned spreadsheet, named "T1" - "T10" respectively.

Models

After transaction identification, we had everything needed to start modeling models.

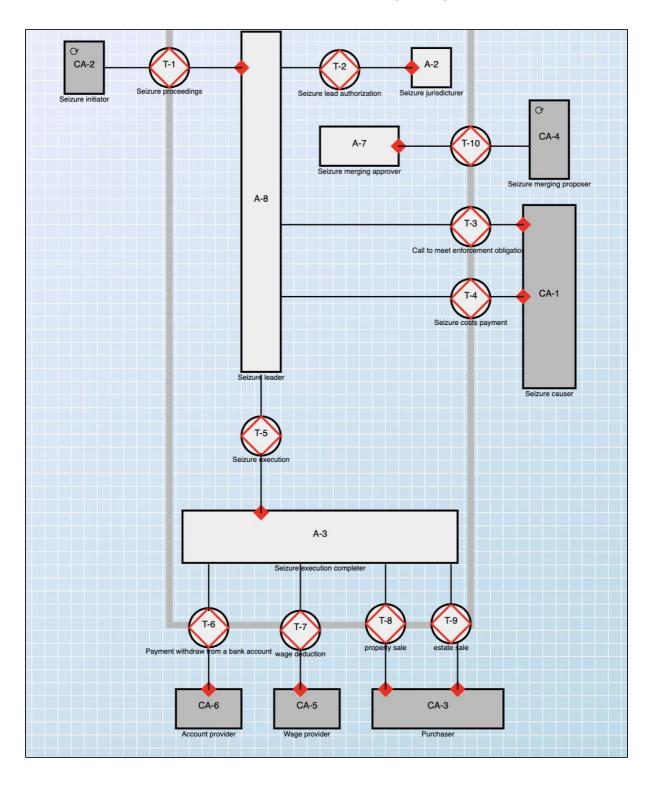
TPT

First we started with TPT, which was pretty done from previous steps. This table could be found once again in <u>spreadsheet</u>.

Transaction	Product
T1: Seizure proceedings	P1: Seizure proceeding is completed
T2: Seizure lead authorization	P2: Seizure lead is authorized
T3: Call to meet enforcement obligations	P3: Seizure is payed
T4: Seizure costs payment	P4: Seizure costs are payed
T5: Seizure execution	P5: Seizure is executed
T6: Payment withdraw from a bank account	P6: Payment is withdrawn from a bank account
T7: Wage deduction	P7: Wage is deducted
T8: Property sale	P8: Property is sold
T9: Estate sale	P9: Estate is sold
T10: Seizures merging	P10: Seizures is merged

OCD

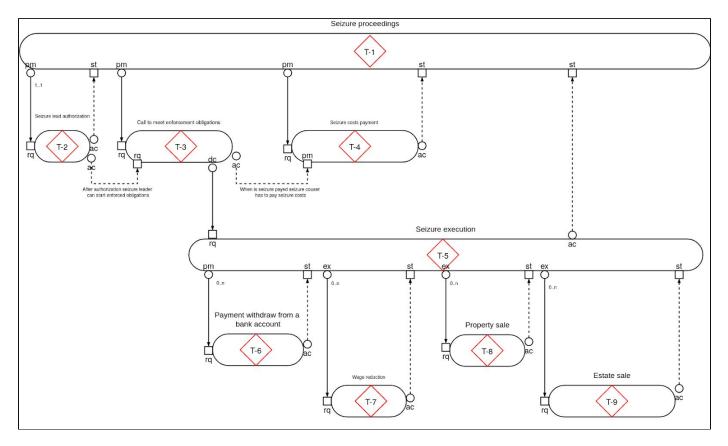
After creating TPT (and also actors as shown in chapter "Identified transactions"), we used Demoworld platform to create OCD for seizure proceedings. Image could be found here.



PSD

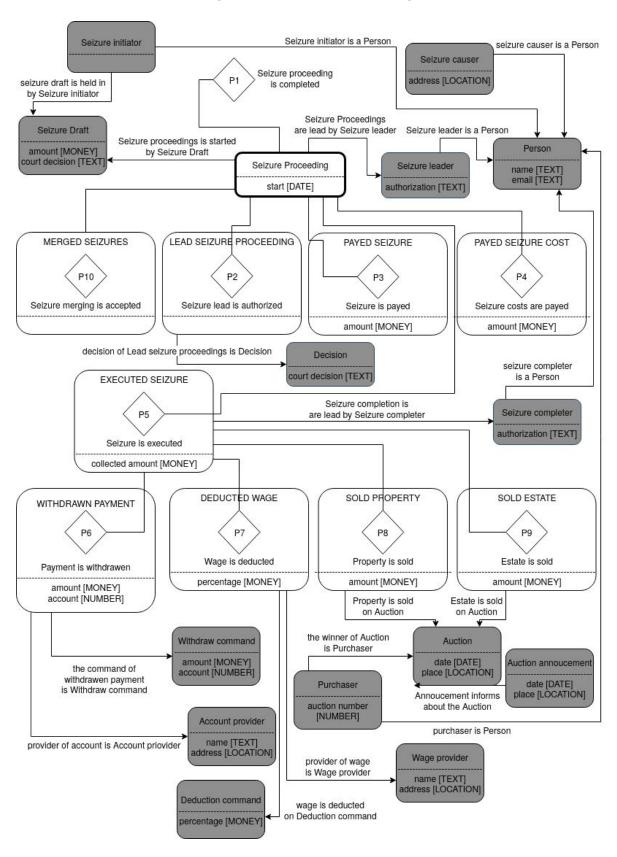
Based of OCD, we've created PSD model using <u>draw.io</u>. Original file could be found <u>here</u>.

On image, one can find few conditional liks, which are described immediately next to them.



OFD

At last, we've created OFD using draw.io. for our domain. Original file could be found here.



Actor mapping

To comply with the original text of law and our OCD, we've created mapping between actors and real persons. Original table could be found once again in <u>spreadsheet</u> in list named "Actor mapping". "X" means that Actor (left column) could be performed by Person (first row).

Role in diagram / Real person	Creditor	Court seizurer	Siezure court	Debtor	Law	Buyer	Bank	Employer
Seizure initiator	Х							
Seizure processor		х						
Seizure leader		х						
Seizure causer				Х				
Seizure jurisdicturer			х					
Account provider							Х	
Wage provider								х
Purchaser						х		
Seizure execution completer		х						
Seizure merging proposer				х	х			
Seizure merging approver			х					

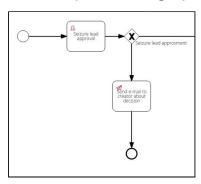
Practical Part

After analytical part, we've continued to practical part. Practical part is mainly focused on converting models from DEMO to BPMN and creating application based on such process using Signavio Workflow Accelerator.

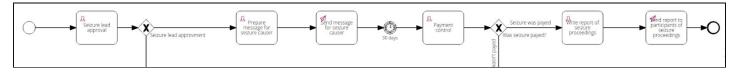
Process in Signavio

Since process in <u>Signavio Workflow Accelerator</u> is pretty big, we've divided it into 3 main parts and then 4 for details. Using export of BPMN in <u>Signavio Workflow Accelerator</u>, we've exported whole process into this <u>file</u>.

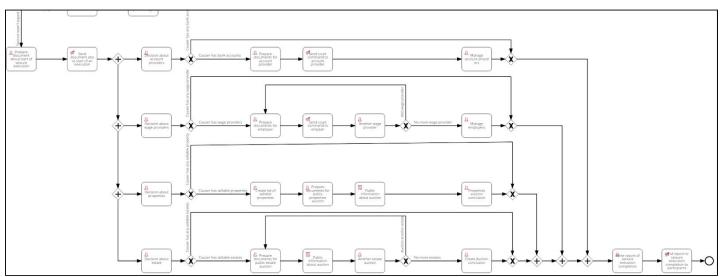
Seizure proceedings proposal rejected



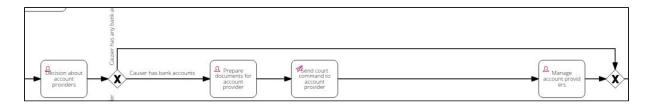
Seizure paid in given time



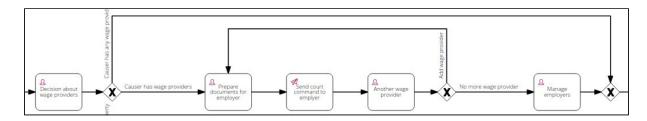
Seizure not paid in given time & end



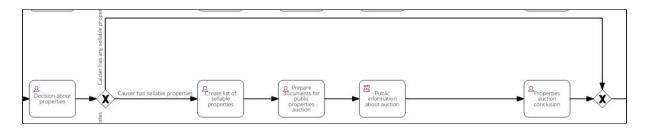
Detail 1



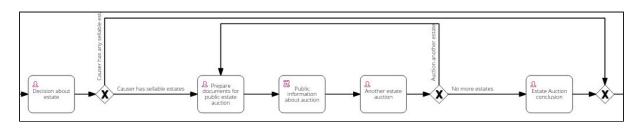
Detail 2



Detail 3



Detail 4



Application presentation

Whole process in created application with all routes is presented in this video (25 mins).

Analytics

To comply with requirements, we've exported events performed during application presentation into <u>this file</u>.

Conclusion

This work is our outcome of our project in scope of digitization of Czech government focused on seizure proceedings. We studied Czech law about seizure proceedings and analyzed ontological transactions in a detailed explanation of the law. Based on those transactions, we developed models for the domain using DEMO notation. After analytical part of our work we converted models to process in BPMN notation using Signavio platform, which we used for creating prototype of an application that automates the process of seizure proceedings.

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