Q&A 17.01.2019

Question for Lars: Do we have different costs per leg? Or is it purely per km/kg? My presumtion only per km.

Changes to make:

Cost structure and paper: Make it clear that we have the responsibility to plan the travels with which vehicles etc.

Q&A Lars 22.01.2019

For Ahmad: How do we want to use/publicise the instances?

There is not really different costs per leg but there is a possibility to expand the model to take into account the start and goal location. The cost structure can be different starting from one region to another. Lars says its also ok if we rather adapt the heuristics later to this part.

It also might be that sometimes you have costs per stop (which means that since we are travelling from i to j and not from supplier to factory) that we are not able to count it with xij (unless we somehow say that costs from i to j within a supplier/factory is 0). Lets discuss how to handle this.

These are both things that we dont have to handle but are more nice to haves that I could adapt the heuristic model for 4flow rather.

24.01.2019

We need to say we have 4 vehicles, 10 stops, bla bla but nothing more.

Need one instance, realistic,

we will not make the instance public, we are not going to write about the customers. We write general about the instance, number of request, number of vehicles, etc. To show how small or big is the problem. To illustrate the problem its nice to have a map with locations, but it doesnt have to be a real example, its completely fine if its fiction but ofcourse the closer to a «real» problem the better for the model.

Many interesting problems, would you be willing to define a good comprehensive model for a phd who will start in 3 months for 4 years.

Preben: Think about the problem if we open a facility we have a fixed cost, if not we dont have it. 5 binary variables, sum equal to one, determines

sum of (j \* xo(v)j) will give me a j which I can multiply with only parameters to determine which cost structure I should use i.e which location I start from.

If our visit in a factory is visited our variable

Focus on point 1 & 2 question, on the weekend and see if we need to adapt alot..

28.01.2019

T1: Adding weight and fixed costs to the model. Should work. Change to greater than instead of max..

T2: Taking starting location into account.

What about all the extreme cases here? If you go from the middle, first north then south. If it is simple and you can only start from cologne or berlin og munich and its always simple then it doesnt make sense for the mathematical model. Then we will work on this later rather as it requires some special knowledge of the geography of the company. Need to ask Lars what all the edge cases are and how it should work for a general case.

T3: Adding stop costs to the model.

Should work.. need to change to Ci and Cj to make the model more general. Write it in the pdf and send to ahmad.

Questions for Ahmad:

* Why do we have to add half the costs? Cant we say that we add all costs after a stop? So an example o(v) ->C=0 i -> C=10 j -> C=10 k -> C=10 d() C(total) = 30
* Very interested in working together about a project. He will bring the topic around the house and make a list of problems in Optimization direction and then let you know about a meeting. I will send you both an email to start your thread and either he or someone else will be the contact person.