Warehouse Case Example

Background

You work for a company that manages a single warehouse which stores various products for customers. The products are delivered and stored on pallets which contain always only one type of a product. All of these pallets are stored on huge shelves inside the warehouse. Each of these shelves are divided into sections to facilitate the discovery of stored pallets.
Customers send the pallets through forwarders to store them for a specific amount of time until they are delivered back to the customer. This is done by trucks as the warehouse has no access to a railroad.
The company is legally bound to store the name, address and telephone number of each owner of a pallet stored in their warehouse. More detailed information can be found in the UML models in the repository.

Models

The repository contains some Papyrus UML Models stored in the files *Warehouse.di*, *Warehouse.notation* and one or more *.uml*-files. The *.di* file contains data needed by the Papyrus editor and usually its content can be ignored. The *.uml* files contain the raw UML model, except diagram information like style, layout data etc. Such information is stored in the diagram model which is located in the *.notation* file. During the interview, the following main UML Models can be found in the repository:

> **Class Diagram:** a class diagram that describes the data stored in our warehouse system.
>
> **Pallet Unloading:** An activity diagram that describes the process of unloading pallet from a truck. This process is not limited to our warehouse system and also includes actions performed by any involved person.
>
> **Pallet Loading:** An activity diagram that describes the process of loading pallets for a specific delivery. This process is not limited to our warehouse system and also includes actions performed by any involved person.
>
> **Pallet States:** A state diagram that contains the state(s) a pallet may have in the warehouse system.

A change may introduce new models or depend on another base version that may contain additional models.

R3.2 Task “Damaged Pallets” - Change 27

Change Id: Ifa7e8593040e2fdbe45c3e8f3a2ed9d0cf31357b

Sometimes, pallets get damaged by accidents in the warehouse, during the delivery, while loading, or while unloading. This has not been incorporated in the current model, so adapt the model accordingly. A pallet is considered as damaged if at least one product unit is damaged. It is also important to inform the owner of a pallet once a damaged pallet has been found.

C2.2 Task “Notifications” - Change 30

Change Id: I1cb04748660708f8dacd257c7f73c7c8663f06e6

Some of our customers requested that their contractors and customer get status notifications of their pallets. Adapt the model with the following notification system: A customer specifies a number of contacts for pallets which can be informed by SMS or Email. Each subscriber is notified once the pallets have been loaded or unloaded.