Collaboration between Subtask 4 and 5

Subtask 5 provides a socket interface which gives subtask 4 the possibility to retrieve information about the clothes.

1. Requirements by subtask 4

- A way to retrieve a list of tags, which corresponds to the pieces of clothes in vicinity a specific RFID reader, is needed.
- When a piece of clothe (and its tag ID) has been singled out, a way to determine the correct bin to place it in, is needed.

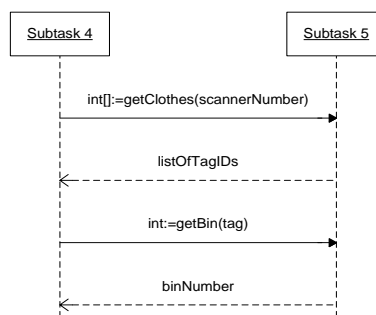This results in the collaboration sequence diagram shown in Figure 1.

Figure 1 - Collaboration diagram

The functions used are pseudo code with no relation to the actual implementation besides functionality. The interface should be a socket interface, to insure communication between different languages and platforms. The message standard, used to communicate the functions through the socket interface, is determined by subtask 5.

2. Description of function usage

Here a short description of the functions required by subtask 4 is given.

2.1. Function "getClothes()"

A grasp in the arrival bin[1] has been made, and the grasped clothes have been placed on the RFID scanner at the sorting table. Subtask 4 calls the function "getClothes()" on subtask 5 to retrieve which and how many pieces of clothes are placed on the table. Subtask 5 returns a list, with the tag ID's, from the pieces of clothes on the sorting table. Subtask 4 uses this list (and the size of the list) in the sorting algorithm.

2.2. Function "getBin()"

When a single piece of clothe has been grasped (this is known due to subtask 4's sorting algorithm), the bin in which to place it must be determined. Subtask 4 calls the function "getBin()" on subtask 5, with the tag ID as argument. Subtask 5 determines, based on the washing criteria, in which bin the piece of clothe with the corresponding tag must be placed. Subtask 5 returns a number which indicates the correct bin.

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[1] The bin which is delivered to the laundry room by subtask 2