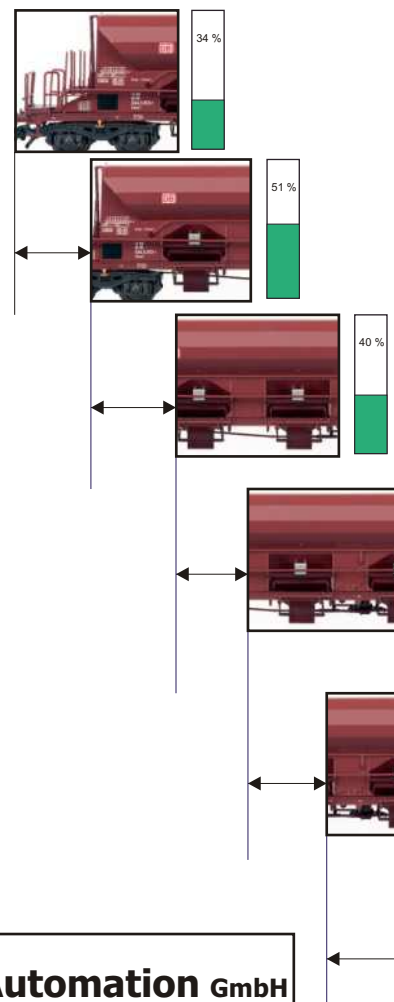
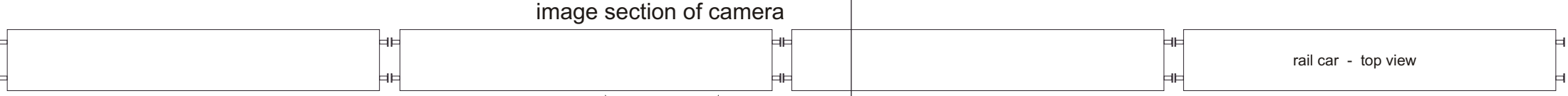
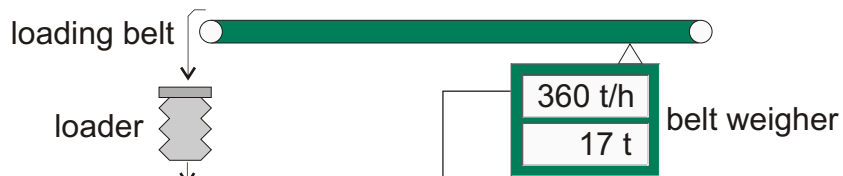
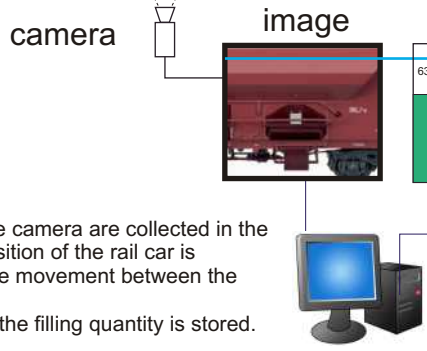


# Filling level monitoring while loading without sight control



The pictures of the camera are collected in the computer. The position of the rail car is calculated from the movement between the different pictures. For each position the filling quantity is stored.



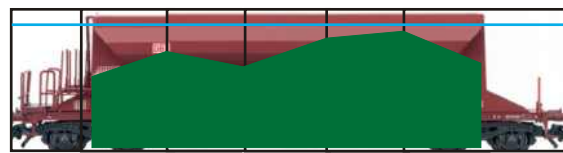
**Loading limit** The loading limit is calculated from the admissible filling quantity (e.g. 50 t) and the length of the rail car (e.g. 12.5 m). It results a loading limit of 4 t/m.

**Filling level indication** The filling level of this position is calculated from the flow rate which the belt weigher indicates and the time which the rail car is resting at this position:  
 $360 \text{ t/h} = 100 \text{ kg/s}$   
 The rail car rests at this position for 2.52 seconds:  
 $100 \text{ kg/s} \times 2.52 \text{ s} = 252 \text{ kg}$  - corresponds with 63 % loading limit.

The particular pictures are positioned on top of one another respectively side by side according to the calculated movement.



Corresponding filling level diagrams are put over the pictures, so you get the impression of being able to look into the rail car.



**Loading limit**  
**Filling level indication**

This description only explains the loading control as a matter of principle. There are of course many more pictures and filling levels which are calculated during monitoring.