

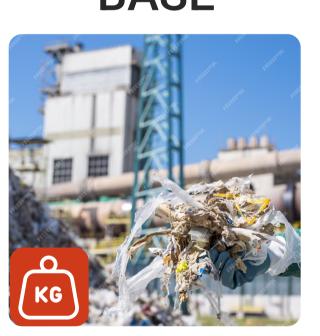
To prevent overestimation of cargo weight, full control is required at all stages of waste collection and unloading. The level of control will significantly increase through the use of a fullfledged hardware and software solution based on the use of trackers, additional equipment and a transport monitoring system.

### Control of work at every stage















**УМКа303** 



2 камеры

**УМКа303** 



2 камеры

**УМКа303** 



2 камеры



**УМКа200** 



**УМКа200** 

- Photographic recording of the fact of garbage collection and its quantity from container sites.
- Photo recording at the base and at the training ground. Comparison of cargo weight to prevent overestimation.
- Estimation of the volume of collected waste.
- Recording the driver's working time and recording data on an SD card.



# Garbage collection machine

To organize full control of the operation of a garbage truck at container sites, the following equipment of the vehicle is necessary:



#### UMKa303



#### **Peculiarities:**



Supports two analog cameras and 1 via RS485/232



CAN support (J1939)



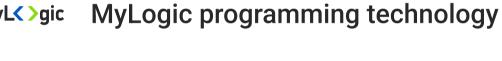
Supports up to 8 BLE sensors



**Lifetime Warranty** 



**Energy optimization system** 





Works as an iBeacon identification system



**Bluetooth interface** 



Interaction via industrial Modbus protocol

## **Connecting any analog** cameras (PAL)



- Wide market range
- Low cost
- High quality images
- Different camera parameters depending on operational tasks
- Connecting any 2 analog cameras and one camera via RS232/RS485

The installation takes into account the type of loading of the garbage truck and the characteristics of its operation



### Monitoring the operation of the garbage truck

#### 1. Preparing the script

Using the MyLogic self-programming system, we will prepare scripts that are most suitable for your tasks. In UMKa303, using this system, an event-based model for creating images is implemented.

#### 2. Installation of cameras

The installation location depends on the type of loading of the garbage truck and the characteristics of its operation. To monitor container sites, it is recommended to install one of the cameras on top, for more convenient recording of the contents of containers. The next camera is installed with a focus on the area behind the garbage truck, since one of the problems is regular accidents near the sites due to poor visibility of the space behind the vehicle.

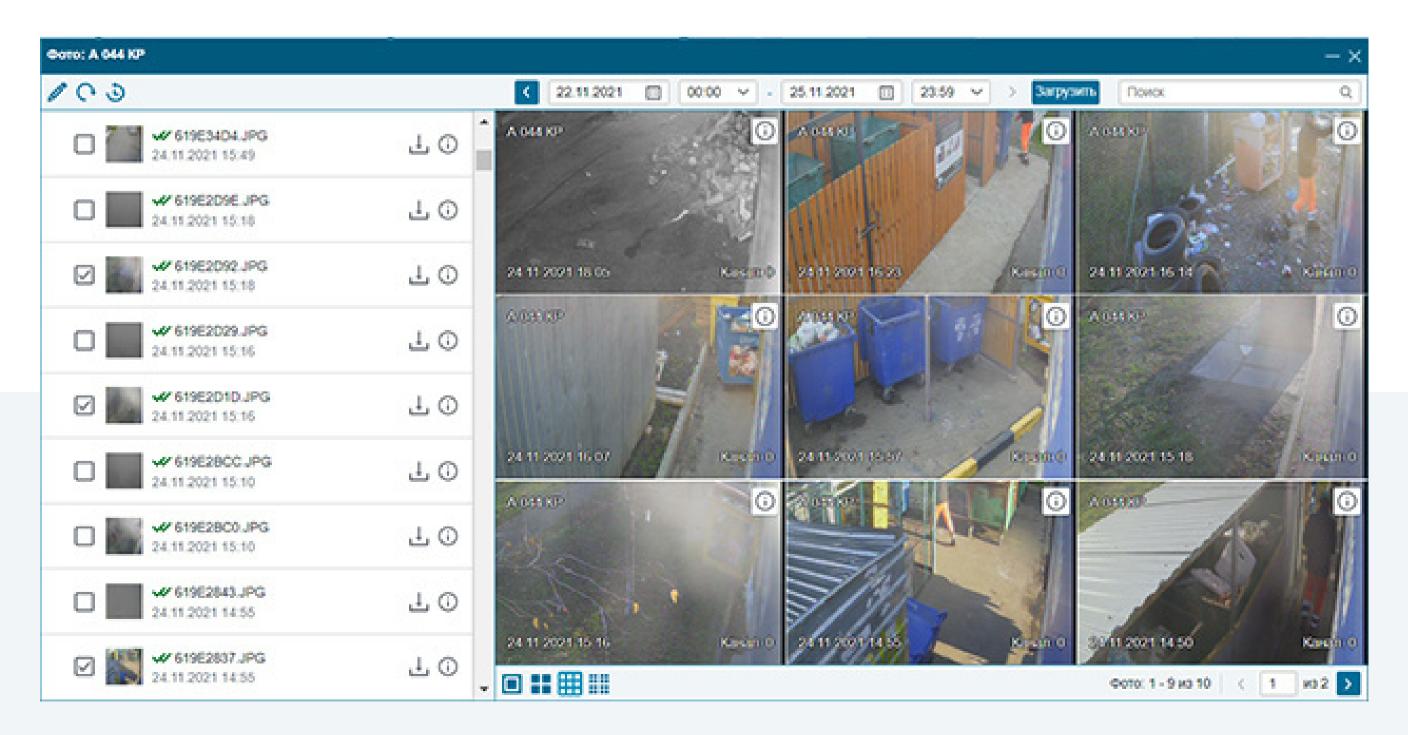
#### 3. Monitoring in the system

After photographing the required event, the data from the terminal is sent to the GLONASSSoft monitoring system, which has the ability to generate various reports based on the photo.

Working with photos can be divided into several use cases:

- 1. Generating a report based on a photo from an object.
- 2. Building reports "Track", "Messages", "Navigation".
- 3. Generating a report from a photo on a map.
- 4. Creating a report in the designer using the Photo template.

In the GLONASSSoft system, images for the required period can be opened on one screen and save in original size.





# Weighing stations

Weight accounting is used to record the vehicle load at the time of weighing.

#### Main tasks at the time of weighing:

- 1. Precise fixation of stabilized weight; 2. Identification of transport and driver;
- 3. Visualization of weighing processes;
- 4. Comparison of weights on the base and the range.



#### Full cargo control

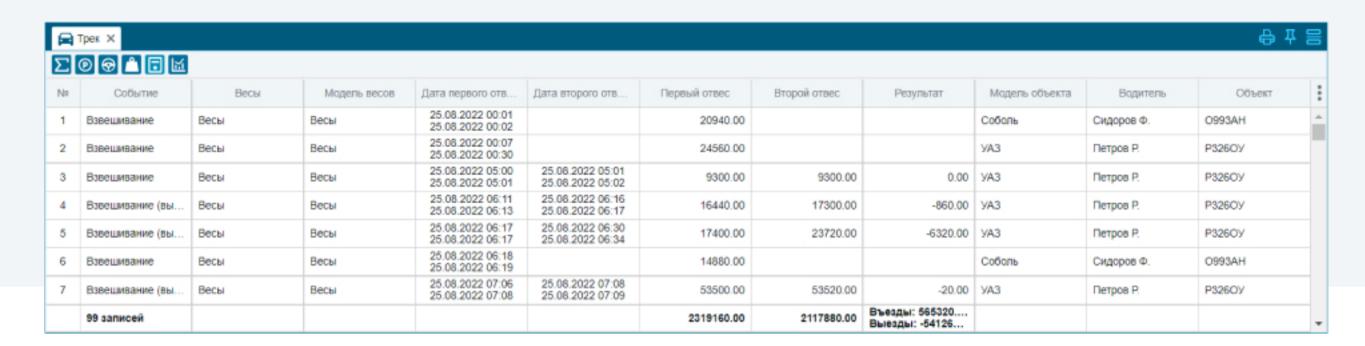
- 1. The system records the weight of the cargo and generates detailed weighing reports, which reflect all the event data received from the tracker.
- 2. Simultaneous recording of vehicle scale readings and creation of a photograph.
- 3. High quality images thanks to an expanded list of supported analog cameras.
- 4. Event-based model for sending photos only the pictures you need during weighing.
- 5. Individual approach to installing cameras depending on the purposes of photomonitoring.



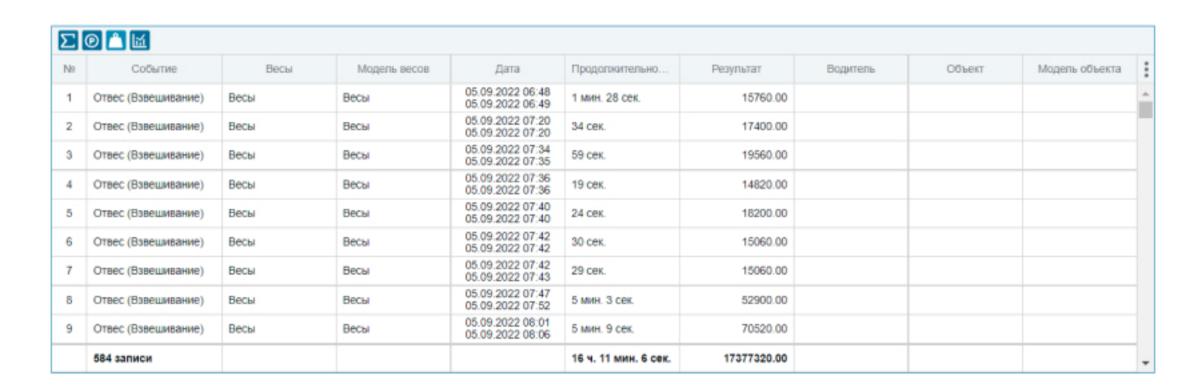
#### Weighing stations in the GLONASSSoft system

In the GLONASSSoft monitoring system, you have the opportunity to build two reports based on data from weighing terminals, these are the "Plumb Lines" and "Weighings" reports.

The main "Weighing" report will display: names of objects, equipment model, date and weighing data. Through the use of an RFID identification system, it became possible to display in the report the connection between the weighing system, the monitoring object and the driver.



You can also use the second report "Plumb Lines", in which events will not be grouped. In this case, only weight measurements will be displayed.



If during the weighing period photographs were received from the terminal into the system, they will be added to the table. Clicking on the photo in the line will open a window with photos that were taken during weighing.

