

“Logistika” № 1/2024

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TransRussia | SkladTech 2024: wider reach – more opportunities

Interview with Natalia Lomunova, Director of the TransRussia | SkladTech 2024 exhibition

MARKET ANALYSIS

Regions have caught up with Moscow in real estate transactions

There is no speculative supply left on the warehouse real estate market in the Moscow region

There is a steady demand for warehouse space in St. Petersburg

WAREHOUSE. INVENTORY MANAGEMENT

Warehouse process management software – the brain of a modern warehouse

D. Filatov

Ways to speed up the acceptance process with WMS

Increasing the productivity of sorters due to the competent combination of cargo flows

V.N. Penzev

Annotation. The article provides examples of sorting devices (sorters) and conveyor systems that use the integration of cargo flows. An example of Oval Sorter performance is given based on possible processes for supplying goods and packaging for sorting. A mathematical and mechanical model for combining cargo flows is proposed to achieve absolutely fast and accurate correct positioning while maintaining minimum distances between goods, packages and increasing the speed of the main and supply conveyors. These models were simulated using MATLAB software. The results of the study were put into practice in a warehouse automation project for marketplace companies.

Key words. Sorting device, sorter, conveyor systems, MATLAB, sorter productivity, sorter speed, combining speed, friction, weight and dimensions.

INFORMATION TECHNOLOGIES

1C:ERP helps to reduce the production cost of products

E. Tsarevskaya

Research on the application of multidimensional data analysis in transport logistics

V.A. Afanasyeva, K.D. Rudenko, D.A. Skvortsova

Annotation. The article multidimensional data analysis using the OLAP model is investigated, its properties and possibilities for revealing hidden dependencies between factors are considered. An OLAP model of logistics operator transportation is constructed.

Key words. Multidimensional Data Analysis, OLAP model, transport logistics.

Making management decisions in the field of digitalization and development of transport capacities

O.A. Naidis, S.B. Klanica

Annotation. The article raises the problem of developing the country's transport infrastructure and introducing digital technologies into transport logistics. An example of making a managerial decision on the issue of digitalization of transport and increasing transport capacity by building a decision tree is considered and substantiated.

Key words. Digitalization, logistics, transportation capacity, management solutions, decision tree.

INFRASTRUCTURE

The Naiba port is a logistics project of the Arctic zone of the Republic of Sakha (Yakutia) and a main hub on the Northern Sea Route

V.V. Tarasov, A.S. Sinitsyna, V.B. Murzin

Annotation. The current geopolitical situation in the world and the introduction of sanctions restrictions against Russia require various measures, including to preserve and enhance the development of the Arctic zone, the creation of new transport and logistics systems that would open a direct road to the northern seas. One of these projects is the expansion of the port infrastructure of the Republic of Sakha (Yakutia) through the construction of a new deep-water seaport hub Naiba. The project provides for the expansion of the borders of the existing Tiksi port, which is a key facility in the eastern part of the Northern Sea Route and one of the most important transport and logistics hubs for the Republic of Sakha (Yakutia). It will solve the issues of northern importation for the Arctic regions, as well as provide an opportunity for the full realization of the transit potential of the republic and the implementation of investment projects on its territory.

Key words. Arctic, Republic of Sakha (Yakutia), Northern Sea Route, port of Naiba, transport system, infrastructure, supply chains, multimodal hubs.

TRANSPORT. TRANSPORTATION

Economic effect on the Moscow-Petrogradskaya line of the St. Petersburg metro from the operation of two operational depots

An.V. Sugorovsky, A.V. Sugorovsky, S.N. Kol, P.V. Kurenkov, E.S. Kurbatova

Annotation. In the article, in order to improve the quality of service for passengers on the St. Petersburg metro, increase the throughput and carrying capacity of the second line of the St. Petersburg metro, the organization of train traffic is proposed, taking into account the service of its two operational depots. To achieve this goal, the size of passenger flows was analyzed, the size of train traffic was determined, and measures were proposed to optimize the transportation process and improve the quality of passenger service. An assessment of the economic efficiency of the proposed measures is given.

Key words. St. Petersburg metro SUE, Moscow-Petrogradskaya line, passenger traffic, electrical depot, train schedule.

Investigation of the of competition level of operator companies in the regional transport system

M.V. Kolesnikov, M.V. Bakalov, V.M. Zadorozhny, Ju.A. Bakalova

Annotation. This article analyzes trends in the rolling stock market and considers combined approaches to analyzing the transport services market in the regional transport system and assessing the level of competition, that includes both qualitative and quantitative approaches. The calculation of the market concentration and Herfindahl-Hirschmann indices for various types of rolling stock has been carried out.

Key words. Operator companies, parameters, methods of assessing the level of competition, market concentration indices.