Press release: it is now possible to implement into life the perfect technology of online trade, the key element of which is the program MLIS/MNIS NPO 1.0.

Michael Burlakov - founder of the new information technology of automation of control of discrete technological and information processes (IT AC DTIP), that has a variety of uses, has created on its basis a new *multilingual* software product of version 1.0 under the name **"Network purchases optimization (NPO 1.0)"**. This program, that has conventional (MLIS) and network (MNIS) performances, allows to find optimal strategies of investing money in acquisition through the Internet of goods from their certain totality, which relate to many sellers and are available to the user via the Center of network trade, which is planed to create for this purpose.

In order to formulate the basic properties of the *perfect technology of online trade* (in short - PTOT), which surely appear in the future, the founder of IT AC DTIP tried to put himself in the place of an imaginary online buyer and at the same time to ignore the traditional technology of online trade and the constraints which it possesses. Such approach allowed to reveal the following key features of the future PTOT:

1) online purchase of any goods of mass consumption will take place through a single website of the *Center of network trade* (in short - CNT), which combines in itself a lot of online stores available for the buyer, including those ones, which warehouses of goods are placed in other cities (and possibly in other countries);
2) CNT will have a developed system of filtration goods, through which a user will select himself for subsequent analysis those subcategories of goods with the required properties that interest him; in other words, out of all huge database of numerous categories of goods available to everyone through CNT a specific buyer will form to himself a relatively small *client database of goods* (in short - CDBG) with which he then will work;
3) when selecting in CDBG the needed sample of the item of goods, that belongs to some seller, the buyer will be guided besides a succinct description of this item of goods not by the net cost of its sample (excluding its delivery), as is the case now, but by the following its parameters:
   - number of samples of this item of goods available at this seller;
   - for each possible variant of delivery of the sample: a) its total cost (including delivery), and b) the maximum period of delivery (the latter two parameters are automatically calculated with considering the address of delivery goods, pointed by the buyer);
4) when selecting goods in CDBG the buyer can specify the utmost amount of money that he is ready to spend on their purchase; at that, a special client program *(see below)* automatically generates the optimal set of purchased goods, which has the highest consumer worth from all those goods which the buyer selected, with a guarantee that their total cost does not exceed the specified amount; for these goods will also be formed files of orders on their purchase and sent from CNT to the network sellers.

It should be noted that none of the existing currently network sellers of goods possess all of the above set of properties. In particular, the last of them is not realized anywhere. Yet some of these properties are now working in practice. In particular, there already exist the unifying websites of sales (for example, http://price.ua), through which you can buy many goods in different online stores. There is realized an effective system of filtration of goods, as well as a comparison of different samples of the goods on their net value, i.e. excluding delivery. However, in our opinion, to realize the proposed PTOT with all the properties listed above will be impossible on the basis of one of these existing unifying websites. Indeed, the work there occurs not with a single universal database of goods, but with diverse local databases that are parts of various online stores, what is here a major obstacle.

To create the perfect technology which possesses all the above properties, we need an entirely different principle to organize the collection, storage and processing of data on goods belonging to different network sellers. It will be based on one universal database of goods (in short - UDBG), part of CNT and accessible to any network seller. This database will specify those parameters of goods, on which they will be filtered by buyers, as well as brief and complete descriptions of goods (including illustrations). CNT will also include simplified (without descriptions of goods) databases of sellers with indicating there, in particular, the numbers of samples of goods in stock at the moment (last information will be updated promptly by sellers).

UDBG will have a certain standard and rules for its replenishment by sellers with the information about those new goods which in this database are still absent. Such universal approach will not only permit to put into practice the proposed PTOT, but liberate the online stores supporting this technology from creating and maintaining their own information bases with descriptions of the goods, being sold by them, which takes place everywhere today. This allows the online stores to direct the saved on this their money on expanding the range of goods, reduction of their purchasing value, and improving services on their delivery to buyers.

For the buyers themselves such perfect technology of sales will not only be more comfortable and convenient to use, but allow also to minimize prices on sold goods because the competition between their sellers sharply increase.

Currently, there are all necessary conditions for implementation in life of the proposed PTOT, based on the use of the above Center of network trade. A key element of this technology is the program NPO 1.0, created by the author, which is a *multilingual* one. Alternative interface languages of this program are stored in separate files, called *language shells*. It includes two such shells: Russian and English, as well as a special program for their generation by users themselves. Through NPO 1.0 a client will set in usual for him language the amount of money allotted by him for online purchases and select needed to him goods in the CDBG, previously formed at his request in CNT. A file of the client's task with these input data will then be transmitted to CNT for automated solving the task there, whereby for this client will be formed the optimal orders on purchasing goods, which then be sent to their sellers.

The program NPO 1.0 is designed to find the optimal strategies of investing monetary means in the purchase via Internet of goods from their particular set, relating to many network sellers and available to the user through CNT. At that, is achieves the maximum value of a total purchasing worth of the being acquired samples of goods, wherefore for each item of goods, selected by the user, is specified a utility ratio or a purchasing worth of its sample. There is allowed to form alternative groups of goods both on their separate categories, and on all categories at once. As a result of solving such task on optimizing purchase of goods are formed files of orders which are transmitted by the user through CNT to the appropriate sellers. It is assumed that this program will work with CDBG that automatically downloads onto the user's computer from CNT after the issuance by him of the request on its creation with the required parameters of filtering goods in their universal database, which is part of CNT.

Two variants of NPO 1.0 have been developed: *conventional* (Multilingual local instrumental system of network purchases optimization - **MLIS NPO 1.0**) and *network* (Multilanguage network instrumental system of network purchases optimization - **MNIS NPO 1.0/upc**). MLIS NPO 1.0 is offline program, designed for a particular user (lite version of this program is free). MNIS NPO 1.0/upc is purposed to provide network services to many users. This system consists of two parts: one remote module of optimization (MO), wherein occurs synthesis of optimal strategies of acquiring goods, and numerous automated work places (AWPs), that are targeted to specific users of MNIS.

The program MLIS/MNIS NPO 1.0 allows to implement the *initial* version of the proposed perfect technology, where the setting of filtering goods parameters and the forming of files of orders will occur on the CNT website, and the work with CDBG itself — on the client's computer, where the CDBG file will be transmitted from CNT. In the future is propose to realize the *final* version of this technology, where all of his actions on selecting goods the client will fulfill on the CNT website.

A set of lite version of MLIS NPO 1.0 you can download from any of two websites of the author: "Promotion center of IT AC DTIP" (http://promo.dtip-optim.com/en) and "Implement. center of IT AC DTIP" (http://dtip-optim.com/en/main). There you can solve your tasks in a test mode in full-scale network program MNIS NPO 1.0/upc.

The author and creator of MLIS/MNIS NPO 1.0 - Michael Burlakov, Doctor of Engineering (Kiev, Ukraine). The term of its entry into operation - November 2016 (the term of MNIS update to version 1.0/upc - 2018).. The areas of its possible use is **online trade in the Internet**.

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