ERP-module for Computer Catalogue Automatic Generation

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Abstract: A set of software modules for computer catalogues creation and use in B2B-communication field is considered. The advantages of this approach over the classic Internet-based E-commerce, the realization steps and the main functionality, which it serves, are discussed.

Keywords: Enterprise Resource Planning Systems (ERP-systems), E-commerce

INTRODUCTION

The catalogue implementation in communication between the vendor and its clients is worldwide proved practice for more than hundred years. This kind of trade in Bulgaria is not widely used but in recent years there is a considerable growth in this area. Obviously, a qualitative catalogue of the offered goods and services can enhance significantly the competitiveness of a manufacturing or trade company and expand its market space.

According to the information location and the client’s access the catalogues can be divided into the following groups:

A. paper catalogues;
B. Internet based catalogues (or as part of E-commerce stores);
C. computer catalogues (CC), distributed as local information systems.

A comparative analysis of these kinds of catalogues is shown in Table1.

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<th>Advantages</th>
<th>Disadvantages</th>
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<td>Paper catalogue</td>
<td>• convenient for the ordinary user</td>
<td>• the price greatly depends on the total print and the number of articles in it</td>
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<td></td>
<td></td>
<td>• low frequency of refreshment</td>
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<td></td>
<td></td>
<td>• difficult distribution</td>
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<tr>
<td>Internet based catalogue</td>
<td>• maximum access</td>
<td>• inconvenient for the ordinary user</td>
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<td></td>
<td>• huge number of articles</td>
<td>• difficult refreshment in case of large number of articles</td>
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<td></td>
<td>• possible component of an E-commerce store</td>
<td>• problems in case of bad Internet-traffic</td>
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<tr>
<td>Computer catalogue</td>
<td>• huge number of articles</td>
<td>• inconvenient for the ordinary user</td>
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<td>• high performance of the information access</td>
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<td></td>
<td>• low price and high refreshment frequency</td>
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The main point of this article is on the catalogues for business partners and as it is evident from the table above, the best choice for B2B-catalogues is to be located and distributed on an electronic carrier. Further the computer catalogue functionality and the ERP-system module for catalogue generation will be considered.
GENERAL SCHEME OF USE OF THE COMPUTER CATALOGUE

The functional scheme of a catalogue trade with computer catalogue, generated by an ERP-system is shown on Fig.1.

1. **Definition.** The vendor through ERP-module named RegiCa_GEN defines the article base, which will represent the computer catalogue.

2. **Generation.** The module RegiCa_GEN generates and writes on CD-R autorun CC install package. Copies of this disc are ready for distribution to the clients.

Fig.1. Functional Scheme of Computer Catalogue.
3. **Installation.** When the client puts the received disc in a computer CD-ROM device, it automatically installs the CC client module - RegiCa, the article base and additional products for attached documents visualization.

4. **Exploitation.** CC is started and the client obtains a quick and easy access to the catalogue data. The user can filter the information on chosen criteria, can create order and send it to the vendor.

**COMPUTER CATALOGUE GENERATOR RegiCa_GEN**

The main functionality of the generator RegiCa_GEN is concentrated in the form shown on Fig.2

![Computer Catalogue Generator RegiCa_GEN](image)

In this system the vendor uses the article base of the ERP-system and can:

- modify the article structure (names and hierarchy in the article base);
- activate and deactivate the availability of articles and groups in the future CC;
- specify prices of the articles, or use rebate (or surplus charge) percent for automatic price generation. As a basis the system uses the current custom prices.
- define an article description (RichText);
- attach a picture information to articles (JPEG, Bitmap, WMF, EMF)
- attach unlimited number of documentary files (Word, Excel, PDF)
- start the generation of a new CC.
To facilitate the access to the stored information, it is possible to filter the article base on several criteria (code, article name, price: >x, <x, =x, etc.). An automatic applying of one operation on a set of selected articles is also allowed.

It is important to say that the generator can operate on an article base, generated by any ERP-system. In this case for article base loading the system implements a transport file either in XML format or an text file (TAB) with a specified structure.

When the generation is started a self-installing package is created. It includes the modified article information, the current version of the CC client module and the non-licensing products for document visualization. (MS Word Viewer, MS Excel Viewer, Acrobat Reader).

**COMPUTER CATALOGUE RegiCa**

RegiCa is self-installing information system which grants a high operational access to the information at the CC. The main functionality is concentrated at the form shown on Fig.3.

The computer catalogue RegiCa enables clients to:

- search and select articles according to the hierarchy structure or by filtration through a sequence of keywords (applying the logic operation AND, OR, NOT, >, <, =);
- get a detail information for an indicated article (text description, picture and attached documents);
- generate the own price lists based on a selection (Text, Excel);
- generate orders to the vendor for desire quantities from selected articles. The orders can be stored, edited and sent (via FAX or Email).
The current order “floating” form is shown on Fig.4:

![Fig.4. A current order at the computer catalogue RegiCa.](image)

The vendor ERP-system (on its hand) has the opportunity for automatic execution of the received by Email orders and for the generation of sale documentation (receipts, etc.)

It is not necessary of course to generate a new catalogue whenever an insignificant change of the article base is made. In these cases, the system can send a correction file via Email for current refreshment of the information.

**CONCLUSION**

Using a B2B-computer catalogue allows achievement of high degree of efficiency of the vendor's activity as well as the clients’ one. Because of not so good indices of the Internet-traffic in Bulgaria, the proposed by authors approach is competitive to the classic Internet-based E-commerce stores, especially in cases of article bases with many thousand positions. The developed system ensures almost full automation and does not require any special knowledge and skills of its users. The average time for user training is not more than one hour for the vendor and half a hour for the client staff.

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