

producers are the USA (approx. 35%), Germany (approx. 20%), Japan (15%), and Russia (15%). Approx. 60% of the documents are published in English, in Russian approx. 15%, in German approx. 10%, and in Japanese approx. 8%.

The distribution of publications according to subjects is as follows:

- Territorial WAN (wide-area networks)  
(numbers are all approx.)
    - global networks 10%
    - regional 6%
    - local 60%
    - institutional (incl. private and public) 40%
  - Networks of data transmission
    - computer networks with commutation of packages, messages, channels, integral service networks 50%
- (The share of publications dealing with methods of physical transmission of data - analog or digital - is less than 2%, and with the logical aspect of interconnection is about 1%)
- Specialized, universal, experimental computer networks, united in accordance with the functional characteristic - 1%
  - homogenous and heterogenous hardware - 1%
  - Computer networks: ring, bus, tree-like, distinguished according to topology - 1%.

The qualitative analysis of the trends in document accumulation of the different classes reflects the development of research dealing with computer networks. At first networks were created by independent firms and were intended for the processing and storing of information. Subsequent (beginning with the mid 80s) organizations, which ensured the transmission of information, began to actively study and create computer networks. This development is reflected by the stormy increase of the flow of publications dealing with the transmission of data and local networks.

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## **Computerized Formation of Alphabetical Subject Indexes to Classification Systems**

In 1991-1992 VINITI's experts worked on the compilation of algorithms and programs of automated formation of an alphabetical subject index (ASI) to classification tables. The ASI to the State Rubricator of STI (the former GASNTI Rubricator) was prepared with the help of the EX-1045 computer, and in its structure there is a KWOC index (permuted-title index of keywords out-of-context).

The main element of this structure, i.e. the entry, consists of the title word denominating the concept, and of the denominations following it in alphabetical order (i.e. full texts) of the classification divisions in which this word appears, with the appropriate codes. On the basis of the machine file of the ASI, built up in this way, proof-sheets for the 4th edition of the State Rubricator of STI, put out in 1992, were prepared.

The package of programs developed by the compilers makes it possible to pick out the terms from the context of formulas of classification divisions, normalize the selected terms according to their number and case, permute the terms of word combinations and draw up an alphabetic list of records and solutions in order to reduce the volume of the ASI without losing its informative capacity. This software can, after some modifications, be used for the compilation of an ASI to any classification systems.