UNITED NATIONS STATISTICAL COMMISSION and ECONOMIC COMMISSION FOR EUROPE CONFERENCE OF EUROPEAN STATISTICIANS

EUROPEAN COMMISSION STATISTICAL OFFICE OF THE EUROPEAN COMMUNITIES (EUROSTAT)

ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (OECD)

STATISTICS DIRECTORA TE

Joint ECE/Eurostat/OECD Meeting on the
Management of Statistical Information Systems
(Geneva, 17-19 February 2003)

**Managing the process of developing applications to automate the processing
of statistical information in Azerbaijan's State Statistical Committee**

**Supporting paper
Item (iii) of the provisional agenda**

Transmitted by the State Statistical Committee of Azerbaijan[1]

---

[1] Authors: Allakhverdiev V.A., Dzhalilov F.A.

Introduction

1.   The application of modern information technologies for the production of statistics has long been widely acknowledged to be effective, and nowadays is hardly questioned. Consequently, issues involved in the management of information technologies are always of current concern for statistical institutions. These are the issues which must always be addressed:

– How appropriate are existing information technologies in statistical institutions, and how effectively are they used?

– How should the process of selecting, installing and integrating specific information technologies be managed?

– How should the personnel and structural units be organized for the purpose of managing information technologies in statistical institutions?

2.   This task may be broken down into three component parts:

– Management of the technical components of information technologies - selection, installation and operation of computer hardware;

– Management of the system components of information technologies - selection, installation and management of system software;

– Management of application components - selection, testing and integration of ready-made packages and development of targeted applications for the automation of statistical functions.

3.   Here we wish to address a few problems arising in the management of applied IT components, that is, the problems involved in developing and using application software to process statistical information, and our view and practical approach in Azerbaijan. We believe that similar problems are of current concern in the statistical institutions of many other countries. Consequently we hope that it will be very useful and relevant to discuss this matter.

Standard packages and special applications

4.   There are two methods of automating the task - using standard packages and developing special applications. Let us first define terms.

– Standard packages. These are usually software products which have an advanced end user interface and a wide choice of standard statistical functions. By means of a few adjustments, users themselves can automate part of their work and implement an entire data processing cycle on desktop computers. The packages include MS Excel, SPSS and many others.

–   Specially developed applications. These are software products which are designed for the automation of specific statistical operations. They are usually developed by programmers within the statistical institution or bought in from outside companies.

5.   Usually both standard packages and specially developed applications are used in statistical institutions. Either approach has both positive and negative aspects. All depends on the tasks to be addressed. In any event, when the issue of automating any operation is raised, we must clearly define the methods which must be adopted for the purpose. The questions are these :

–   What criteria should be used to make a choice between standard packages and special products?

–   How should one handle the process of selecting specific standard packages from among the many proposed by various companies?

–   How should the automation of statistical functions using standard packages be managed?

–   What resources should be used to develop special application programmes for the automation of statistical functions, and what are the stages in developing these proposals?

6.   All these questions fall within the competence of the programmers and information technology specialists in each statistical institution. Consequently, it is very important in automating the production of statistics to clearly organize and define the functions of these units.

7.   There are two diametrically opposed opinions. Some consider that the programmers of a statistical institution should be dispersed into the statistical units and perform their tasks under their direction, while others believe that programmers should be centrally located in special units. The truth probably lies somewhere in between. Thus the next issues to be addressed are:

–   Definition of the ideal structure of programming units in a statistical institution;

–   The functions of the programming units at different stages of the development of software and technologies for the automated processing of statistical information.

8.   In view of the size limitations of the present document, we will confine ourselves here to posing specific questions, and endeavour to supply a full response in the full version.