

INFORMATION TECHNOLOGY

The history of computerization of UN statistics started in 1965 when the United Nations received its first mainframe computer, an IBM 7044/1401 mainframe computer system. Prior to this date IBM mechanical punched card tabulator were used these machines for tabulating and computing summary statistics. To support mainframe operations the New York Computing Services (NYCS) was established. The UN Statistical Office soon realized the opportunity and by establishing the Computer Systems Development and Programming Section started to process data from reporting countries, most of which was received in magnetic tape or punched card format.

In 1971 the International Computing Centre (ICC) was created by a Memorandum of Agreement among the United Nations (UN), the United Nations Development Programme (UNDP) and the World Health Organization (WHO), pursuant to resolution 2741 (XXV) of the United Nations General Assembly. It was created as an inter-organization facility to provide electronic data processing services for themselves and other users.



UNSD become active user on both NYCS and ICC mainframes using SPSS Statistical Package for Social Sciences, SAS Statistical Analysis System, MAGACALC On-line spreadsheet, TAB68 Cross Tabulation System of National Bureau of Statistics, Sweden, TPL Table Producing Language of US Bureau of Labor Statistics to process statistical data and produce yearbooks.

By the 1980s UNSD created a complex mainframe system called the United Nations Statistical Information System (UNSIG) where all separated data records with different structures were converted to one standard fix length character timeseries databases. As well as the system produced publishing ready tables for practically all publications of the Statistical Office using the Table Producing Language(TPL) UNSIG was developed using PL1, but one of the modules – conversion different type of measurement was written with FORTRAN and part of the photocomposition module with ASSEMBLER.

In 1986 the UNSIG data retrieval part was redesigned and further developed to allow users, outside of the Statistical Office to access the stored information. At the same time a mail function was added to UNSIG and enabled users to communicate with each other.

Starting with the advent of IBM PCs in 1984 UNSD purchased the first PCs for processing statistical data and publishing statistical publications and a slow transition started from the mainframe to new paradigm of computing. In the early 1990's UNSD got its connection to the UNHQ computer network and from that moment all users got easy access to the mainframe from their own computers at the same time email was introduced which created new opportunities for communication and data collection.

In 1996 UNSD established its presence on the Internet and started to disseminate statistical data from the very moment.

In May 1997 at an expert group meeting on applying new methods and technologies for statistical databases UNSD used Internet dissemination of meeting documents in PDF. This was a highly successful experience and it was applied for the 1998 Statistical Commission meeting and later sessions.

By the mid 1990s it was clear that there will be no need for mainframe computer processing and processing can be moved to servers and PCs on Local Area Networks (LAN). The first client-server applications were created in 1997-1998 in the areas of national accounts and demography.

In 1999 a new approach was tested for Internet data dissemination by creating the United Nations Common Database (UNCDB) an interactive database for statistical data on broad topics. At this time it became apparent that a new Intranet/Internet type of architecture would be the best solution for UNSD. In 2001 UNSD started a migration of all systems both client-server and mainframe based to Intranet/Internet platform and completed the migration of mainframe applications by December 31, 2005 when the last day of mainframe operations took place.

As of late 2006 all major statistical production systems are Internet/Intranet based providing enhanced capabilities for data collection, processing and dissemination. The computing infrastructure comprises of 10 servers for production and development with overall storage capacity of 5 Terabyte.

The history does not stop here UNSD is in the process of creating new products and services for external users by introducing a Development Indicators Portal in 2007, providing web services for our partner to exchange data using standardized data exchange protocols.