WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR EUROPE

WELTGESUNDHEITSORGANISATION
REGIONALBÜRO FÜR EUROPA

ORGANISATION MONDIALE DE LA SANTÉ
BUREAU RÉGIONAL DE L'EUROPE

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ
ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

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MASTERPLAN FOR INFORMATICS SUPPORT TO THE REGIONAL OFFICE FOR EUROPE OF THE WORLD HEALTH ORGANIZATION

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1. Overall statement of requirements

The European Regional Office of the World Health Organization have for the past few years been expanding its use of data processing and word processing technologies. As can be seen from the description of existing applications (Annex I) and the description of planned applications (Annex II) as well as the description of the existing data processing and word processing facilities of EURO, there is a need for an enhancing of these facilities.

On 7 July 1983 the Director-General agreed to the purchase by EURO of a Wang VS linked to Wang OIS equipment under experimental conditions. These conditions include monitoring and evaluation of two distinct but closely interlinked issues, namely:

- the substance of EURO's management information system
- the informatics involved

It also includes conversion/transfer of all existing EURO application programmes from the computer (IBM S/34) to the Wang VS computer. Converted programmes will run on any Wang VS computer from VS 25 to VS 100 with sufficient disk capacity without further modifications.

BACKROUND INFORMATION

Introduction

The main functions of the Regional Office Information System are:

a) to provide information support to the management of WHO projects and programmes with Member States;

b) to support the international exchange of health and health-related information.

Reference a)

The different phases of the WHO management process are: planning, programming, programme budgeting, direction of the implementation, monitoring and control and evaluation which can lead to replanning and reprogramming and requires co-ordination with other WHO bodies as well as with international and national institutions. These activities/steps require a high amount of free-text and structured-data. A system architecture must therefore cater for a high level of integration of EDP and word/text processing. It is important that the system's resources, i.e. processing capacity and data stored, are generally accessible from all work stations.

The suitability of local-area-network (LAN) should be followed closely during the next years.

Reference b)

To improve the exchange of information concerning health and the health-related situation, strategies, programmes, approaches and resources among countries and between countries, the Regional Office require facilities for:

- data-entry, storage, and analysis of statistical data
- maintenance of bibliographic directories (including free-text retrieval)
- communication (e.g. EURONET) to international databases and to outside computers equipped with "standard statistical software packages" where local support cannot be economically justified.

Possible integration with telephone network (public, PABX), data network and telex network.

Communication, most likely asynchronous using dial-up lines, with EDP- and text processing equipment installed in Member States.

2. List of existing data processing applications

2.1 Existing

See Annex I.

2.2 New

See Annex II.

3. List of existing word processing and related applications

3.1 Existing

See Annex III.

3.2 New

See Annex IV.

4. Requirements for integration of data and word processing

By "integration of text and data processing", in this paper, is meant not simply, however managerially advantageous, the use of the same screen and type of personnel for access to both facilities but also the simultaneous use, for a given application, of the joint and interactive support of the different EDP and text processing facilities available.

Present situation

At the present time there are many examples of double entry of information for various administrative purposes. For instance, all personnel are listed in connexion with the AFI system on the computer but the manning table is produced on the text processor. Therefore, changes have to be introduced on both systems by different staff at different screens but with information from the same source. The same is true of the address lists. On the computer there is a large address list used for various purposes including the despatch of publications. However, for correspondence and letters to official contacts, the list of addresses from the Secretaries' Handbook is stored on the text processing system and manipulated by the use of glossaries. Because of the nature of the current link between the computer and text processing there is no better solution. Again, it goes without saying that these lists are altered by different staff members on different equipment but using information from the same source. Consultants used by the Regional Office are recorded manually by Personnel, on the computer for briefing purposes and on the text processor for reporting and monitoring purposes. The same consultants are recorded again in the global list at headquarters. Naturally, the more files being updated separately, the greater the danger of error. There are numerous other examples of this type of multiple entry.

Furthermore, there is entry of information in different applications, such as the managerial component of AFI, which can only be transmitted on paper to the units concerned but which cannot be retrieved on line by the units requiring this information.

Programme and project implementation in the Regional Office is based on planning memoranda which rely on information from different text and data bases. This entails processing 4-5000 memoranda per year, varying between one and ten pages each.

For some time, at least two years, the development of a standard planning memorandum has been delayed because of the realization of the need for an automated link between the medium-term programmes, the consultation letter, the draft programme budget, the proposed programme budget, and the implementation phase consisting of standard planning memoranda and other pre-project documentation, project monitoring, project reporting and ad hoc and regular briefing, not to mention evaluation and feedback into the next programme budget cycle.

The approach in EURO to programme budgeting and decentralized programme management presupposes on-line availability of both programme and budget information.

At every stage there is, moreover, a need for cross links with the management element of the administration and finance system (AFI), the address lists, the lists of temporary advisers used by the Office, etc.

A further advantage of a linked system would be the potential for retrieving information from European and international information networks such as EURONET and, having once identified the information required, being able to manipulate it and merge it directly into office documentation. This also applies to data bases established or planned in EURO such as health statistics, health legislation, technology assessment, etc.

Programme managers are constantly asked to produce texts for planning, implementing and reporting in various forms as well as evaluation and would find access to existing text and data basis invaluable and time saving for this purpose.

Another issue in this field is the monitoring of targets for HFA which requires easy exchange of information between national information bases and the different Regional programmes.

Conclusion

It is the research and development policy of all major office equipment firms to integrate all aspects of office work, making the facilities equally available to professionals and support staff. The first step in this direction is the integration of text and data processing.

When assessing the need for increased support to management and technical units in the Regional Office, it was realized early last year that any attempt at increasing the amount of the equipment used in the Office must, for the above reasons, do more than simply extend existing computer and text processing facilities. Handling the information available and potentially available from the text processing system requires the power of a computer to speed up the handling of structured data, the capacity of a computer to store a much greater amount of structured documentation on-line for search and retrieval purposes. This would in addition avoid the handling of heavy manual

systems and eliminate duplication. It will also give motivation for the staff to maintain these information files, all relying on the same material in the same form for different purposes and serving one another. How else is one to solve the serious programme staffing and workload problems in the Regional Office?

For the Organization as a whole, the important issue must surely be rational and effective programme delivery at country level. In the case of EURO, because of the cost of staff, improved managerial tools are the only way out.

5. List of common applications

To be issued when contributions from all offices are available.

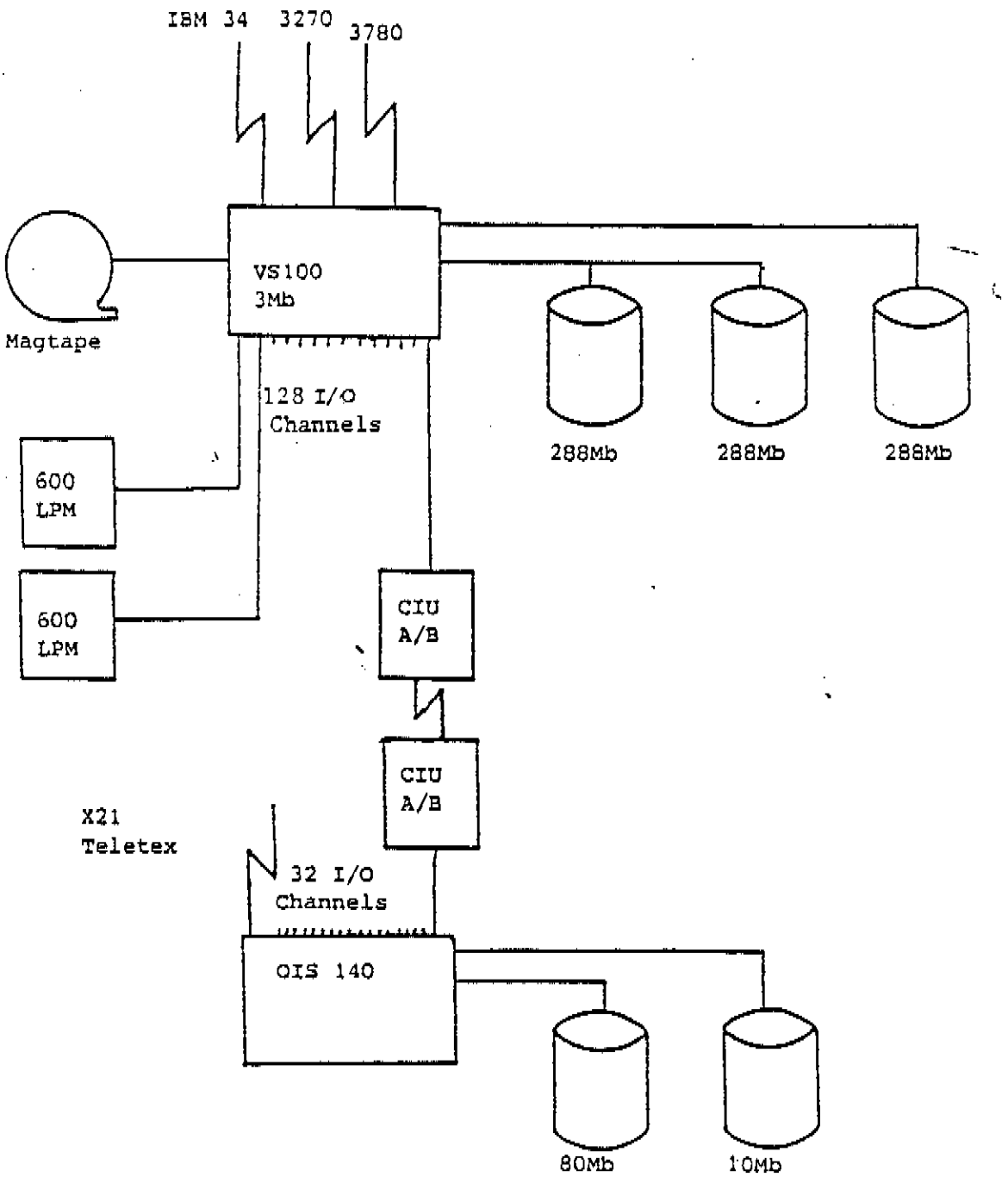
6. Summary of data and word processing hardware and software requirements for existing and new applications

6.1 Summary of hardware requirements

6.2 Summary of software requirements

See Annex IV: Appendix A and B.

7. Systems architecture



8. Resource implications

See Annex VI.

9. Time schedule

See Annex VII.

10. Reliability of installed hardware.

See Annex VIII a and b.

Annex Ia

Region: EURO

Application: The Administration and Finance Information System (AFI)

Existing Data Processing Applications

1. Brief summary

The AFI system is a large application which requires special consideration. AFI, standing for Administration and Finance Information System consists of subsystems for:

- Budget control
- Expenditure accounting
- General ledger accounting, and
- Payments system.

The system was implemented in this Regional Office as a first step in its diffusion to other offices. At the time of writing, one other office is in the process of adopting the system. In this process WHO headquarters supports the new users with guidelines as to the use of the system, but the technical support must come from this Office.

The Regional Office has agreed to support an up-to-date version of the AFI programme for system S/34 up to 31 December 1983. This includes the provision of training and back-up for other Regional Offices.

2. Date of commencement, expected termination date

The system was implemented in phases starting January 1980.

3. Summary description of data input, processing and output

4. Number of end users

Today restricted to 6 VDUs in BFO, or 9 staff members.

5. Indicate the number of files and file sizes in millions of bytes

The system includes 27 files, growing during a biennium to 130 Mb.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

Updating of the system is in batch processing. Data-entry with some on-line validation.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

Daily.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

The system is composed of more than 150 COBOL programmes.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

The system will be converted to operate on Wang VS during 1984.

13. Does this application envisage integration of data processing and word processing facilities

Integrtion is envisaged.

14. Is this application linked to another Information System

Information systems reflecting programmes activity are all expected to have linkage to the AFI system for budget and finance components.

15. Are you planning extensive revision/expansion/conversion of the application

Revisions are mainly dictated by new financial rules.

Conversion from IBM S/34 to Wang VS is foreseen during 1984.

16. Indicate what documentation is available

The system is documented by HIPO diagrammes. Users' manual partly available.

17. Indicate communication or telecommunication requirements

Diskettes used for communication with HQ and the Danish bank system.

Annex Ib

Region: EURO

Application: Address Register

Existing Data Processing Applications

1. Brief summary

This system covers on-line maintenance enquiry and off-line selective listing of names and addresses of persons or institutions which have relations with the Organization. Various listing formats are supported including mailing labels. Programmes are available for the production of specially formatted lists such as list of national counterparts and list of expert panel members. The system inlcludes one register for addresses.

2. Date of commencement, expected termination date

System was implemented in 1980. Ongoing application.

3. Summary description of data input, processing and output

4. Number of end users

Data-entry is centralized in order to secure the quality of the register. On-line query will be available to all units when the application is operational on the VS system.

5. Indicate the number of files and file sizes in millions of bytes

The register uses one file (rec. length 512 bytes). The disc-space used today is 13 Mb. It still increases with approximately 1 Mb per year but an equilibrium of 20-25 Mb is expected.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

The file is updated and queried on-line, however, the index needed for the query is updated in batch-mode depending on the amount of input but minimum once per week.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

See above.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

The system is composed of 1 COBOL and 10 utility programmes.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

Integration is envisaged.

14. Is this application linked to another Information System

The system is linked to:

- Invitation to non-WHO meetings, COR
- Register of absences
- Attendance at WHO meetings
- Training centres; profile and courses
- Linkage to Fellowships Information System foreseen
- Staff Training and Development Information System.

15. Are you planning extensive revision/expansion/conversion of the application

Conversion from IBM S/34 to Wang VS foreseen during 1984.

16. Indicate what documentation is available

Documentation and users' manual available.

17. Indicate communication or telecommunication requirements

Annex Ic

Region: EURO

Application: Fellowships Information System

Existing Data Processing Applications

1. Brief summary

One of the main activities in the area of health manpower development is the fellowships programme. This is designed to strengthen national health services by enabling health personnel from one country to obtain further training in another country.

The Organization grants fellowships to persons wishing to study certain subjects. Each region of WHO administers the fellowships for studies in their region. This system enables on-line recording of fellowships information, and the production of a number of lists featuring variable selection criteria, time frames and sorting arrangements.

The Regional Office handles over 2500 individual applications for fellowships each year. Many of these come from candidates proposed by the health administrations of European Member countries, but an even greater number are fellows from other Regions. The Regional Office is responsible for placing them in universities and training institutes throughout Europe.

The WHO fellowships programme has contributed to the training of a large number of physicians, nurses, engineers, administrators, and other health workers in most countries of the world. Some occupy key positions in their national health services, and many are now training a second or third generation of students.

Of course, the problems are no longer the same as they were 25 years ago, and the courses to which WHO fellows are sent have adapted to changing needs. Today's WHO fellows study a wide range of health and related subjects in universities and technical schools.

Language difficulties have to be taken into consideration when deciding where to place fellows, and the more flexible the programme can be in this respect the more successful it is likely to be. For example, training in epidemiology and health statistics is now available in English, French, and Russian in London, Brussels, and Bratislava respectively.

System overview: the information system permits the recording of fellowship information in three separate files. These are:

- applications file. A file containing data on individual applications to WHO for the grant of fellowships, showing personal details, type of fellowship, follow up data and financial information.
  File name on disk is FEAPL
- awards file
- placement file.

The information can be added and amended to all files, however deletion cannot take place. Records which are no longer valid are marked as cancelled.

2. Date of commencement, expected termination date

The system was implemented January 1977. Data for the past 9 years will be maintained on-line.

3. Summary description of data input, processing and output

System composition: the system comprises a number of programmes which provide services as required. These programmes are:

FE0100 Programme to update the three Fellowships system files. Also permits on-line enquiry by key.

FE0400 Selection programme to produce subsets for list programmes FE0500 and FE0600.

FE0500 Prints Fellowships location lists from subset produced by FE0400.

FE0600 Prints action lists from subset produced by FE0400.

FE0800 Produces statistics of study days or placements by various parameters.

FE0900 Produces statistics of number of study days versus country of origin and source of funds.

FE1000 Produces a list of manual files expired or otherwise no longer required.

FE1100 Produces a list of application requiring action/survey.

FE1200 Survey of application received in EURO.

FE1300 Produces statistics on estimated cost versus country of origin and source of funds.

FE1400 Produces an analysis of subject of number of fellows by various parameters.

FE1500 Statistics of number of fellows and days of study versus source of funds, place and type of studies.

FE1600 Statistics of number of study days by region or origin and country of study.

FE1700 Statistics of number of awards and study days by region and age group.

FE1800 Termination of study report.

FE1900 Produces statistics of course.

FE2000 This programme produces a secondary index of the Fellowships application file keyed on name.

FE2100 This programme provides on-line enquiry of applicant by name based on the index produced by FE2000.

FE2300 This programme is a version of FE0600 to produce a list by WHO programme.

4. Number of end users

Today restricdted to 1 VDU in the FEL unit. On-line query may be available to all units when the system is converted to VS.

5. Indicate the number of files and file sizes in millions of bytes

Annual growth is about 1 Mb. The total disc-space will not exceed 10 Mb.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

Data-entry, updating and validation is on-line.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

Updating on-line on a daily basis.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

The programming language is COBOL (see item 3).

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

The system will be converted to operate on VS during 1984.

13. Does this application envisage integration of data processing and word processing facilities

Integration is envisaged.

14. Is this application linked to another Information System

Integration is envisaged with the AFI system and the Address Register.

15. Are you planning extensive revision/expansion/conversion of the application

Conversion from IBM S/34 to Wang VS is foreseen during 1984.

16. Indicate what documentation is available

Users' manual partly available.

17. Indicate communication or telecommunication requirements

Communication is foreseen with countries via tele-lines.

Annex Id

Region: EURO

Application: Register of Absences

Existing Data Processing Applications

1. Brief summary

This a small system for on-line recording of planned and confirmed absences and the production of a number of lists to report absences of classes of personnel within given time references. The system has two registers. One is the register of absences and the other a register of staff members.

2. Date of commencement, expected termination date

System implemented in 1980. Data for the past 6 years and future activties will be maintained on-line.

3. Summary description of data input, processing and output

4. Number of end users

One technical person is responsible for all data-entry. On-line query will be available to all units when the application is operational on the VS system.

5. Indicate the number of files and file sizes in millions of bytes

Annual growth is about 1 Mb. The total disc-space will not exceed 10 Mb. Two files are used by the system:

- staff file (rec. length 300 bytes)
- absence file (rec. length 300 bytes).

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

All files are updated and queried on-line.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

Updating on-line on a daily basis.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

The system is composed of 1 COBOL and 10 utility programmes.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

Integration is envisaged.

14. Is this application linked to another Information System

The system is linked to:

- the EURO Address Register
- Invitations to non-WHO meetings, COR,

linkage to the AFI system is prepared but not implemented.

15. Are you planning extensive revision/expansion/conversion of the application

Conversion from IBM S/34 to Wang VS foreseen during 1984.

16. Indicate what documentation is available

Users' manual under preparation.

17. Indicate communication or telecommunication requirements

Annex Ie

Region: EURO

Application: Statistical Applications

Existing Data Processing Applications

1. Brief summary

With regard to more advanced statistical analysis and the production of graphs, the Regional Office benefits from the service of the "Northern European University Computer Centre" (NEUCC) where statistical software packages are available e.g.:

- statistical analysis system (SAS)
- biomedical computer programmes (BMDP)
- statistical package for the social sciences (SPSS)
- scientific sub-routine packages (SSP).

NEUCC has the following computer architecture:

IBM 3081
IBM 3033
IBM 4341 (two)
IBM Series 1 (three)
RC 3502 (two)
RC 8000

The EURO computer is linked with a Remote Job Entry (RJE) protocol to the above host.

2. Date of commencement, expected termination date

The service was implemented in 1981.

3. Summary description of data input, processing and output

4. Number of end users

Mainly HST staff.

5. Indicate the number of files and file sizes in millions of bytes

EURO has the choice of storing the data either on own discs-space or on discs-space at NEUCC.

Support to questionnaires (data entry, validation, etc.)	5 Mb
Technical studies (known today)	
- care of the elderly	42 Mb
- nursing	50 Mb
- support to HFA 2000	55 Mb
- oral health	5 Mb

A total disc-space of 100 Mb should be foreseen.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

8. Frequency of on-line or batch update. Indicate volume in number of transactions

9. Type and number of output facilities used

All input/output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

See item 1.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

Integration is envisaged.

14. Is this application linked to another Information System

15. Are you planning extensive revision/expansion/conversion of the application

16. Indicate what documentation is available

Standard manuals to respective systems.

17. Indicate communication or telecommunication requirements

Strong telecommunication with NEUCC. Telecommunication with member countries for direct transmission of statistical data foreseen. Pilot project will be undetaken in 1984/85.

Annex If

Region: EURO

Application: Training Centres, Profile and Courses

Existing Data Processing Applications

1. Brief summary

A list of postgraduate courses in the European region is being prepared in public health in order better to respond to training requests received by this Office.

The main purpose is to serve as a catalogue in answer to queries received. The original prospectuses are retained by this Office and we can thus provide a first sifting of information. It is planned to send each department/unit/school its own printout every year for updating.

2. Date of commencement, expected termination date

System implemented in 1982. Data for the past 2 years and future activities will be maintained on-line.

3. Summary description of data input, processing and output

4. Number of end users

Technical unit responsible for data-maintenance. Directory can be accessed for on-line queries from all terminals.

5. Indicate the number of files and file sizes in millions of bytes

One file containing information on course.

Record length is 700 bytes.

Total file-size is 5 Mb.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

Updating and query is on-line. System can be accessed for queries from any terminal.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

Update on-line, monthly.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

TC0100 (update course)
TC0200 (print history file)
TC0400 (on-line search with incomplete data)
TC3000 (select and print courses)

All programmes are coded in ANSI-COBOL.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

Yes.

14. Is this application linked to another Information System

Linked to EURO Address Register system by retrieving name and addresses of persons and institutions external to WHO.

15. Are you planning extensive revision/expansion/conversion of the application

Conversion from IBM S/34 to Wang VS foreseen during 1984.

16. Indicate what documentation is available

Users' manual.

17. Indicate communication or telecommunication requirements

Annex Ig

Region: EURO

Application: Staff Training and Development Information System

Existing Data Processing Applications

1. Brief summary

Computerization of SDT data will contribute to more efficient programme delivery by aiding executive management in its decisions on the utilization of human resources, the planning and deployment of manpower, and the further training of staff.

Ready access to printouts of individual training records will provide insight into the professional, managerial, technical and linguistic capabilities of staff and their potential for further training.

Availability or non-availbility of staff at any period of the year because of involvement in training commitments, as participants or faculty, will be apparent from computer outputs.

Computerization will provide an on-hand stock of information relating to SDT activities for use in compiling records and producing optical reports on the work of the Regional Office during specific periods under review.

2. Date of commencement, expected termination date

Users test started October 1983. Full implementation as from 1984.

3. Summary description of data input, processing and output

4. Number of end users

SDT is repsonsible for data-entry. On-line query may be available to all units when the system is converted to VS.

5. Indicate the number of files and file sizes in millions of bytes

The system uses four files:

- personal profile register (rec. length 300 bytes)
- all participations of one person to events (rec. length 300 bytes)
- events register (rec. length 568 bytes)
- all participants to one event (rec. length 18 bytes).

The total disc-space needed for the system will not exceed 6 Mb.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

All files are updated and queried on-line.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

Updating on-line, weekly.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

SD0100 (update person)
SD0200 (update particip)
SD0300 (update events)
SD0101 (history person)
SD0201 (history particip)
SD0301 (history events)
SD1000 (add persn to event)
SD1100 (list personnel)
SD1200 (send confirmation)
SD1300 (send events list)
SD1400 (survey)
SD1500 (survey)
SD1600 (survey)
SD1700 (survey)
SD1800 (survey)

All programmes are coded in ANSI-COBOL.

Total amount of programmes implemented now: 10

Total amount of programmes when fully implemented: approximately 25.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

Integration is envisaged.

14. Is this application linked to another Information System

The system is linked to the EURO Address Register.

15. Are you planning extensive revision/expansion/conversion of the application

Conversion from IBM S/34 to Wang VS foreseen during 1984.

16. Indicate what documentation is available

No documentation is available at the moment. Users' manual will be prepared.

17. Indicate communication or telecommunication requirements

Annex Ih

Region: EURO

Application: Remote Job Entry to IBM Host Processors

Existing Data Processing Applications

1. Brief summary

A system is available to enable jobs to be despatched from screens of the data processor, via telephone line, to machines responding to the IBM JESS 2 protocol. This enables the use of machines and software larger or more specialized than any which would be justfied inhouse.

2. Date of commencement, expected termination date

3. Summary description of data input, processing and output

4. Number of end users

5. Indicate the number of files and file sizes in millions of bytes

6. Annual growth rate of files

7. Are the files updated and queried on-line? Indicate the number of terminals used

8. Frequency of on-line or batch update. Indicate volume in number of transactions

9. Type and number of output facilities used

10. Number of computer programmes (specify programming language and software packages used)

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

14. Is this application linked to another Information System

15. Are you planning extensive revision/expansion/conversion of the application

16. Indicate what documentation is available

17. Indicate communication or telecommunication requirements

Annex Ii

Region: EURO

Application: Consultation Letter

Existing Data Processing Applications

1. Brief summary

A system exists to permit replies of the member countries to the budget consultation letter, to be recorded on-line. The data so captured is used to produce a number of reports.

2. Date of commencement, expected termination date

Application implemented in 1982.

Some adaptation to each new biennium is needed. Data for actual GPW will be maintained on-line.

3. Summary description of data input, processing and output

4. Number of end users

The application is maintained by EIS including data-entry.

5. Indicate the number of files and file sizes in millions of bytes

The system uses one file
- consultation letter register (rec. length 40 bytes).

The total disc space needed for the system will not exceed 1 Mb.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

The file is updated and queried on-line.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

Updated ones every second year.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

The system is composed of three COBOL and six utility programmes.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

Integration is envisaged.

14. Is this application linked to another Information System

The application will be linked to word processing applications (budget preparation, MTP, programme review meetings). It will also be linked to the future "programme management system, monitoring".

15. Are you planning extensive revision/expansion/conversion of the application

Conversion from IBM S/34 to Wang VS foreseen during 1984.

16. Indicate what documentation is available

No documentation available.

17. Indicate communication or telecommunication requirements

Annex Ij

Region: EURO

Application: Health Legislation Notification System

Existing Data Processing Applications

1. Brief summary

The data system used is called MIMER/IR and implemented on equipment at the Uppsala University Computing Centre (UDAC).

The EURO HLE Notification System was started in 1979. This initiative is geared at strengthening the reporting of new health legislation to the Regional Office.

It is based on the principles embodied in Art. 63 of the WHO Consitution: "Each Member shall communicate promptly to the Organization important laws, regulations etc. pertaining to health".

Its aims are:

1. to develop intergovernmental exchange of information on health legislation;

2. to provide the Regional Office with constantly updated information about national health policy and legislation;

3. to facilitate the access to and the use of data on national legislation within the Office.

Its functioning is based on the use by national counterparts of a standard notification form designed by the HLE unit in consultation with the users.

It is presently used for three different type of activities apart from HLE programme needs:

a. inform the governments on legislative developments in the Region: each Member State once a year receives a report on new legislation passed in the Region;

b. facilitate access and use of data on national legislation within the Office: information has been encoded not only by country and subject but also by programme and unit concerned;

c. collaboration with HQ in selecting the texts for publication in the Digest; copies of the notification forms being sent to HQ.

2. Date of commencement, expected termination date

The system was implemeted in 1979. Data available so far will be maintained on-line.

3. Summary description of data input, processing and output

A document in HLES, is defined as a notification form. A relatively high degree of data structuring is a very characteristic need in the HLES. The document is therefore subdivided into the following subtitles:

Subtitle	Description
REGDATE	Registration date
C	Country
PE	Proposed or enacted
RPL	Reference to primary legislation
SU	Subject (or keywords)
TI	Title
PU	Purpose (main purpose of legislation
REM	Remarks (about importance of legislation with regard to national health policy)
DATEN	Date of enactment
DATOP	Date of operation
DATEX	Date of expiration
AP	Affected programmes
AU	Affected units
ORG	Organizations

The content of a document is either in English or in French. If a document is in French, then the title and the subject will also be stored in English.

Every subtitle has an identification, a name of at most eight characters. Synonyms may be defined for every defined subtitle, thus simplifying the usage of the HLES.

Retrieval operations may be performed on any of those defined subtitles. That means that we may state: "we want those documents from Hungary (C EQ HUN) that affect programme PHC (AP EQ PHC) and are indexed on TRAINING (SU EQ TRAINING)". This is a very difficult operation to solve in big manual files, but with modern information retrieval systems there are no problems.

Every year the HLE unit (both RO/HLE and HLE secretary) spend 8 weeks in total working on the notification system.

The different phases being:

- sending letters and forms to governments
- receipt of notification forms
- sending reminders for missing replies
- encoding the replies for computerization
- tranlating from French into English for data received from French speaking countries
- typing of the encoded forms on the computer
- proof reading (EURO)
- correction of mistakes in the data bank (Uppsala)
- final print of corrected input sent by Uppsala to EURO
- reporting to countries, i.e. sending a complete set of printout to each of them.

4. Number of end users

The use of the register is so far restricted to the HLE unit.

5. Indicate the number of files and file sizes in millions of bytes

Annual growth is about 3.5 Mb. The total disc space will not exceed 27 Mb.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

Files are updated and queried on-line.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

See item 3.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

The data system used in the EURO health legislation system is called MIMER/IR, a module in a family of general modules. The family name is MIMER.

MIMER/IR is a computerized information retrieval system. The main function of such a system is, of course, to facilitate retrieval operations on stored data. With the increasing demand of information exchange follows a problem to extract the right infformation at the right time, especially as the information quantity becomes very high. In this situation a computerized information retrieval system an IR-system, as MIMER/IR, becomes a very useful tool.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

See item 10.

13. Does this application envisage integration of data processing and word processing facilities

Integration is envisaged.

14. Is this application linked to another Information System

Not linked to any other application, but will be one of the bibliographic applications when MIMER becomes operational on EURO's VS equipment.

15. Are you planning extensive revision/expansion/conversion of the application

The application will be transferred from UDAC to EURO's VS equipment as soon as MIMER is operational on WANG VS.

16. Indicate what documentation is available

Documentation available.

17. Indicate communication or telecommunication requirements

Telecommunication foreseen as the remarkable diversity of the retrieval operations possible with this system makes the data base accessible both to Member States and to programme/units in the Office. For the HLE programme it is also a source of statistical data about the evolution of national health policy and legislation. For instance, during the years 1979 to 1982 there is a high percentage of texts related to PHC and to the control of health care expenditures. Trends within countries, can also be seen, e.g. most of the Moroccan legislation passed is on health manpower.

Annex Ik

Region: EURO

Application: Invitations to Non-WHO Meetings, COR

Existing Data Processing Applications

1. Brief summary

This system is used to keep track of all meetings to which the Office is invited and of the action taken in response. The system permits on-line recording of meetings or responses and the production of lists responding to varying parameters. The system includes one register, the register of invitations. The address register, the attendances register and the register of absences are consulted.

2. Date of commencement, expected termination date

System implemented 1983. Data for past 6 years and future activity will be maintained on-line.

3. Summary description of data input, processing and output

4. Number of end users

All units and services within the Regional Office.

5. Indicate the number of files and file sizes in millions of bytes

Annual growth is about 1,5 Mb. The total disc space will not exceed 12 Mb. Record length: 700 bytes.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

The invitation file is updated and queried on-line. No update and query for back-up file. For update purpose only one user at time can operate on invitation file. The update can be done by any terminal connected to the system. For listing purpose the file is shared so that different users at different terminals can access the file.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

Updating on-line on a daily basis.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

The application includes the following 10 programmes:

C00100 (update and query)
C00101 (history print)
C00200 (weekly-sheet)
C00300 (checkform)
C00400 (survey)
C00500 (survey)
C00600 (on line search)
C00700 (survey)
C00800 (survey)
C01000 (update units)

All programmes are written in ANSI-COBOL.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

Integration is envisaged.

14. Is this application linked to another Information System

The system is linked to:

- EURO address register
- Attendance at WHO-meetings
- Register of absences.

15. Are you planning extensive revision/expansion/conversion of the application

Conversion from IBM S/34 to Wang VS foreseen during 1984.

16. Indicate what documentation is available

Users' manual

17. Indicate communication or telecommunication requirements

Annex I1

Region: EURO

Application: Country profile/digest

Existing Data Processing Applications

1. Brief summary

This system permits the on-line recording of data which reflects health related conditions of the countries of the region. Simple list programmes exist but the main use of the register is as input to a statistical programme using standard statistical package (SAS) on a remote service installation accessed via remote job entry (q.v.). The system includes the digest register.

2. Date of commencement, expected termination date

System implemented 1981. Data for past 6 years will be maintained on-line.

3. Summary description of data input, processing and output

4. Number of end users

Only used by staff in HST.

5. Indicate the number of files and file sizes in millions of bytes

Annual growth is about 1 Mb. Total disc space will not exceed 10 b. Two files are used by the system.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

Both files are updated and queried on-line:

EPID-Digest (rec. length 80 bytes)
EPID-Indicator (rec. length 150 bytes)

8. Frequency of on-line or batch update. Indicate volume in number of transactions

Register updated every month.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

The system is composed of 4 COBOL programmes.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

    Integration is envisaged.

14. Is this application linked to another Information System

15. Are you planning extensive revision/expansion/conversion of the application

    Conversion from IBM S/34 to Wang VS foreseen during 1984.

16. Indicate what documentation is available

    Users' manual under preparation.

17. Indicate communication or telecommunication requirements

    Telecommunication with member countries foreseen.

Annex Im

Region: EURO

Application: Attendance at WHO Meetings

Existing Data Processing Applications

1. Brief summary

This system enables the on-line recording of meetings or other events of interest and the attendances to these meetings by persons of interest to the Organization whose personal details are recorded on the address register. A number of report programmes enable the listing of participants to selected events. The system includes a register of events and one of attendances. Access is made to the address register.

2. Date of commencement, expected termination date

The system was implemented in 1983. For attendance to WHA, EB and RC data back to 1 January 1978 were entered. Data for the past six years and future activity will be maintained on-line.

3. Summary description of data input, processing and output

4. Number of end users

Data-entry centralized. Directory can be accessed for on-line queries from all terminals.

5. Indicate the number of files and file sizes in millions of bytes

Two files: participation-file (rec. length 100 bytes), event file (rec. length 510 bytes). Total disc space required for the system: 6 Mb.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

Updating and queries are on-line. System can be accessed for queries from any terminal.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

Updating on-line on a daily basis.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

PM0100 (update events)
PM0102 (history events)
PM0103 (subroutine)
PM0200 (update particip)
PM0201 (history particip)
PM0301 (subroutine)
PM0401 (subroutine)
PM1000 (survey)
PM1100 (survey)
PM1400 (survey
PM1500 (survey)
PM1600 (on-line search)
PM1200 (survey)
PM1300 (survey)
PM1700 (survey)
PM1800 (survey)

Total: 16 programmes. All programmes and subroutines are written in ANSI-COBOL.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

Integration is envisaged.

14. Is this application linked to another Information System

The system is linked to:

- invitation to non-WHO meetings (COR)
- the EURO address register.

15. Are you planning extensive revision/expansion/conversion of the application

Conversion from IBM S/34 to Wang VS foreseen during 1984.

16. Indicate what documentation is available

User' manual under preparation.

17. Indicate communication or telecommunication requirements

Annex In

Region: EURO

Application: Budget Preparation, Financial Status Report

Existing Data Processing Applications

1. Brief summary

The subsystem is to be used to ease the work of producing a proposed budget. The activities proposed by the units are entered in terms of a number of variables (meetings, language publications etc.) and costed with activity costs provided by BFO. Following discussions, amendments can be made to the data either at activity level or at Dollar level. The end result is a proposed budget broken down by programme. This proposed budget is later possibly modified to give the effective working budget for the coming biennium. The register containing this data can thereafter be used in conjunction with the expenditure accounting subsystem registers to provide status for the programme managers.

2. Date of commencement, expected termination date

Aplication implemented 1983.

3. Summary description of data input, processing and output

4. Number of end users

BFO responsible for all data-entry. On-line query will be available to all units when the application is operational on the VS system.

5. Indicate the number of files and file sizes in millions of bytes

One file is used (rec. length 912 bytes). Total disc space will not exceed 4 Mb.

6. Annual growth rate of files

See above.

7. Are the files updated and queried on-line? Indicate the number of terminals used

All files are updated and queried on-line.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

Comprehensive updating every second year; "revised budget figure" updated monthly.

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

The system is composed of 3 COBOL and 4 utility programmes.

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

    Integration is envisaged.

14. Is this application linked to another Information System

    The system is linked to the AFI system.

15. Are you planning extensive revision/expansion/conversion of the application

    Conversion from IBM S/34 to Wang Vs foreseen during 1984.

16. Indicate what documentation is available

17. Indicate communication or telecommunication requirements

Annex Io

Region: EURO

Application: Linkage to International/National Databases

Existing Data Processing Applications

1. Brief summary

Through international data networks such as EURONET, SCANNET and ESANET the Office has on-line access to about 100 databases including MEDLINE, HEALTH, CANCERLINE, TOXLINE and AQUALINE.

2. Date of commencement, expected termination date

Implemented with TTY terminals and modems in 1981.

3. Summary description of data input, processing and output

4. Number of end users

5. Indicate the number of files and file sizes in millions of bytes

6. Annual growth rate of files

7. Are the files updated and queried on-line? Indicate the number of terminals used

8. Frequency of on-line or batch update. Indicate volume in number of transactions

9. Type and number of output facilities used

10. Number of computer programmes (specify programming language and software packages used)

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

In the future the service is foreseen to be organized in such a way that results of retrievals can be converted to Wang text documents and thereafter integrated/merged with existing documents.

14. Is this application linked to another Information System

15. Are you planning extensive revision/expansion/conversion of the application

16. Indicate what documentation is available

17. Indicate communication or telecommunication requirements

Annex Ip

Region: EURO

Application: INFO-AGE

Existing Data Processing Applications

1. Brief summary

INFO-AGE is a bibliographic system using MIMER/IR and implemented on equipment at UDAC. It supports the storage of abstracts and structured data (year, country, keywords, etc.) for documents related to the project "care of the elderly".

2. Date of commencement, expected termination date

Implemented in 1982.

3. Summary description of data input, processing and output

The application will be part of the bibliographic services; EURO-DOC. As implemented now the register is compatible with PAHO-DOC.

4. Number of end users

5. Indicate the number of files and file sizes in millions of bytes

6. Annual growth rate of files

7. Are the files updated and queried on-line? Indicate the number of terminals used

All files are updated and queried on-line.

8. Frequency of on-line or batch update. Indicate volume in number of transactions

9. Type and number of output facilities used

All output media on the VS system will be available.

10. Number of computer programmes (specify programming language and software packages used)

11. What is the level of EDP manpower resources (in-house or external) required for maintaining this application

12. Indicate the hardware and software required

13. Does this application envisage integration of data processing and word processing facilities

Integration is envisaged.

14. Is this application linked to another Information System

See item 3.

15. Are you planning extensive revision/expansion/conversion of the application

The application will be transferred from UDAC to EURO equipment when MIMER becomes operational on Wang.

16. Indicate what documentation is available

Documentation available.

17. Indicate communication or telecommunication requirements

Need for telecommunication is foreseen.

Annex IIa

Region: EURO

Application: Conversion of IBM S/34 Software to Wang VS

New Applications

1. Brief textual summary

All IBM S/34 production programmes which are written in COBOL, will be converted to VS COBOL. All production procèdures for running these programmes will be converted to VS procedures.

During the conversion care will be taken not to modify the layout of input screen, the file layouts, the validation and processing rules and report layouts and content. In other words Datalog will accept responsibility to deliver systems transparent of the machine being used. Any exceptions will be submitted to WHO for approval prior to implementation.

The converted programmes will run on any VS computer from the VS 25 to VS 100 with suffficient disk-capacity without further modifications.

The approval of the conversions will be subject to an acceptance test by WHO.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Fixed-period.

4. Desired date for system/application becoming operational

1984.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

6. Is this system/application related to other existing/planned application(s) that you know of

7. How frequently will system be used (input, processing, output)

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

EURO.

9. Will your programme have the budget for system development and ongoing running costs

The conversion to be done by Datalog supported by Wang.

Annex IIb

Region: EURO

Application: Management Orientation of selected Existing Applications

New Applications

1. 'Brief textual summary

The installation in 1984 of an integrated system architecture of EDP and word- text processing equipment for the Regional Office makes it functionally perform as one processing system, although it consist of several CPUs. It also makes system's resources (i.e. processing capacity, data stored) generally accessible from all work stations. At the same time, work stations (screens, printers) will be decentralized to all technical units so that a screen (supporting both EDP and text processing) will be available in all secretariats.

The above makes management orientation of existing applications possible. Below are a few examples:

- on-line query services to many of the applications in Annex I can be made directly available for technical units in their own secretariats. Although an application cover the entire office (e.g. EURO Address List) the service can be tailormade for a given unit so that the system appears as an unit information system.

- Routine distribution of lists/reports such as

  - visitors list
  - absence list
  - minutes from RD's weekly meeting
  - financial status report

can be made on-line accesible from the screen in the unit secretariat leaving it to the unit just to look at the material on the screen or request a hard copy.

This to reduce the paper-flow, photocopying, manpower, etc.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Ongoing.

4. Desired date for system/application becoming operational

To be started in 1984.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

6. Is this system/application related to other existing/planned application(s) that you know of

7. How frequently will system be used (input, processing, output)

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

9. Will your programme have the budget for system development and ongoing running costs

To be developed and implemented by EURO.

Annex IIc

Region: EURO

Application: Programme Management System (Monitoring)

New Applications

1. Brief textual summary

Monitoring is the term used in the Regional Office for activities related to the decision-making process at all levels:

- executive management
- service directors
- unit/programme managers

The monitoring system supports and controls the decision-making process, based on information contained in "standard planning memoranda". Information concerned with implementation of programmes and projects.

It is expected that the "programme monitoring system" will need access to most of the present and planned applications. The support will be a combination of:

- on-line search/retrieval
- batch-reports

with selection of data from several applications in one search or report.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

Administration.

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Ongoing application.

4. Desired date for system/application becoming operational

To be started in 1984, refinements expected to end in 1985.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

Files to be updated and queried on-line.

6. Is this system/application related to other existing/planned application(s) that you know of

This application will be related to or part of most other EDP applications in the administrative area and some text processing applications.

7. How frequently will system be used (input, processing, output)

Updating, daily.

Reporting, ad hoc.

Processing, on-line.

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

PMO, RO and EIS.

9. Will your programme have the budget for system development and ongoing running costs

To be developed and programmed by EURO.

Annex IId

Region: EURO

Application: Personnel Information System

New Applications

1. Brief textual summary

The purpose of the system is to ease the monitoring of staffing, management of staff costing for the purpose of inclusion in the budget and ad hoc reporting. It is envisaged to support this application with a staff-register and a post-register.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

Administration.

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Ongoing application.

4. Desired date for system/application becoming operational

To be implemented and tested during 1985. Fully operational as from January 1986.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

EURO would like to expand the RO/AFI system by developing the following applications to be operated locally in Regional Offices.

(1) Management Information Systems for Personnel, including data entry of "Personnel Actions" in the Regional Offices;

(2) Linkage of Personnel Information System to Payroll system in Geneva;

(3) Linkage of Payroll System to the Regional Office Payment/expenditure System;

(4) A new system to support Budget Submission, and

(5) Linkage of the Budget Submission System to the RO/AFI System.

Items (1), (2) and (3) are being studied at headquarters and solutions will be included in the redesigned Personnel application. It was agreed at the Fifth ISS coordination meeting (March 1982) that as was done for the RO/AFI system, these three applications could be reprogrammed on the basis of the detailed systems specifications developed at headquarters. Such an approach will ensure full compatibility between the headquarters and regional Office systems. As to the timing, EURO was in favour of an implementation to be done in parallel with headquarters. It was pointed out, however, that the users often refine their requirements in the light of experience and consequently it might be wiser and less costly to wait until the headquarters system has been in operation for a few months.

6. Is this system/application related to other existing/planned application(s) that you know of

The application is related both to HQ/AFI and RO/AFI (see item 5).

7. How frequently will system be used (input, processing, output)

Updating in the Regional Office would be daily. Submission of modifications and new entries to HQ will be on a monthly basis. Processing is on-line..

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

PER and BFO.

9. Will your programme have the budget for system development and ongoing running costs

Could be a development shared between EURO and HQ.

Annex IIe

Region: EURO

Application: Bibliographic Services, EURO-DOC

New Applications

1. Brief textual summary

This is an area covering a number of similar applications. In essence it is required to permit the storage of abstracts of more voluminous documents (books, legislation, reports etc.) accompanied by sets of keywords and, for each type of original data, by varying items of related data. The types of data are: health activities in other international organizations; mandates and resolutions of WHO governing bodies; WHO recommendations; international reports/documents; working papers for meetings; travel reports; short term consultant reports; fellowship reports; library housekeeping; library cataloguing; inventory of publications; linkage to international documentation centre; intermarc tapes from national libraries; books in print, etc.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

Health services.

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Ongoing.

4. Desired date for system/application becoming operational

The basic for all the above applications will be the full relational DBMS, MIMER.

MIMER is expected to be operational on the EURO equipment during the spring 1984. Implementation of some bibliographic applications (with free text retrieval) will start soon thereafter.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

Files to be updated and queried on-line.

6. Is this system/application related to other existing/planned application(s) that you know of

All applications mentioned in the "summary" will be integrated and expected to constitute "one-system".

7. How frequently will system be used (input, processing, output)

Updated, daily.

Reporting, ad hoc.

Processing, on-line.

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

HLT and RTS to be main responsible units for data-entry.

On-line query to be available from most terminals.

9. Will your programme have the budget for system development and ongoing running costs

To be developed and programmed by EURO.

Annex IIf

Region: EURO

Application: Publication Management System

New Appliations

Existing Data Processing Applications

1. Brief textual summary

A system for the management monitoring and scheduling of publications production.

The problem is that it is not easy to give a target date for publication of any particular book because whenever there is one change in any part of the process of publishing one book, this affects all the other work. Changes include: late arrival of manuscripts, manuscripts being longer or shorter than expected, changes in priorities, and unexpected workload in any of the production units involved. "Norms" could be provided for the average editing, typesetting, proofing and printing times based on the length of a manuscript. This information could then be used to calculate expected publication dates for all MSS in hand and even for proposed publications and these dates could all be automatically altered whenever a change was introduced. This would not only help to eliminate the need for the frequent queries presently received from technical units, Directors and EXM but would also enable better planning of the promotion and distribution of the books when they were produced.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

Health services.

3. Fixed-period (e.g. Scientific survey/study) or ongoing

An ongoing application.

4. Desired date for system/application becoming operational

January 1986.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

See item 1.

6. Is this system/application related to other existing/planned application(s) that you know of

Relation to the "Programme Mangement System (Monitoring)".

7. How frequently will system be used (input, processing, output)

Updated, weekly.

Reporting, ad hoc.

Processing, on-line.

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

PUB.

9. Will your programme have the budget for system development and ongoing running costs

To be developed and programmed by EURO.

Annex IIg

Region: EURO

Application: Enhancement of the EURO Address Register

New Applications

1. Brief textual summary

It would seem useful to separate the address register record into a number of records each into its own file.

The following could be envisaged

- a name and personal information record
- an institution record
- a postal address record
- sets of registers to contain codes such as list code, function code etc. related to the relevant records above.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

Health services.

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Ongoing.

4. Desired date for system/application becoming operational

1984/86 and 1989.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

6. Is this system/application related to other existing/planned application(s) that you know of

7. How frequently will system be used (input, processing, output)

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

9. Will your programme have the budget for system development and ongoing running costs

To be developed and programmed by EURO.

Annex IIh

Region: EURO

Application: Statistical Data-base

New Applications

1. Brief textual summary

In order to support:

- special statistical data-bases
- questionnaires
- technical studies

facilities must be available for data entry, validation, storage reporting and graphics.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

Health services.

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Partly ongoing, partly for fixed-period.

4. Desired date for system/application becoming operational

To be started mid-1985.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

Partly on-line, partly batch processing.

6. Is this system/application related to other existing/planned application(s) that you know of

No.

7. How frequently will system be used (input, processing, output)

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

HST.

9. Will your programme have the budget for system development and ongoing running costs

To be developed and programmed by EURO in collaboration with HQ.

Annex IIj

Region: EURO

Application: Registry

New Applications

1. Brief textual summary

Registry records, at present maintained manually, represents an enormous amount of data (card-system). The overlap with data-recording elsewhere in the office should be studied and evaluated with regard to the need for automation.

EURO will rely on the findings from a similar study which is being run in headquarters at the moment.

2. Programme area (Health Services, WPC Offices, Supply, etc.)*

Administration.

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Ongoing.

4. Desired date for system/application becoming operational

1987.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

6. Is this system/application related to other existing/planned application(s) that you know of

No doubt related to other applications.

7. How frequently will system be used (input, processing, output)

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

Registry.

9. Will your programme have the budget for system development and ongoing running costs

EURO will rely on system analysis and recommendations for implementation expected to be available from the headquarters study.

Annex IIk

Region: EURO

Application: Electronic Mail, Telex, Tele-fax

New Applications

1. Brief textual summary

New services and devices are now available such as: telecopy which can advantageously replace the telex, tele-writing which can replace all the mailing services especially for business applications.

New communications standards are now in progress for transmitting textual data such as the teletex and videotex tools. All these services and devices will eventually replace the mailing and telex systems. Other devices are now available for voice output synthesis and voice input recognition and these devices are necessarily controlled by computer systems. Therefore, they can operate only in a communication network including data processing capabilities. For the transmission of images and patterns TV broadcasting is still largely used but the development of digital transmission is now sufficiently advanced to handle the transmission of graphical and image data through communication networks.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

Health services.

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Ongoing.

4. Desired date for system/application becoming operational

To be implemented in steps starting in 1985.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

6. Is this system/application related to other existing/planned application(s) that you know of

7. How frequently will system be used (input, processing, output)

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

9. Will your programme have the budget for system development and ongoing running costs

The development in the above area will be carefully followed by EURO. Implementation foreseen to be in close collaboration with HQ.

Annex III

Region: EURO

Application: Calendar Management

New Applications

1. Brief textual summary

The standard software product "calendar" is used to maintain an electronic appointment book, compile a Things to Do list, and schedule meetings with other people. Appointments and notes about the appointment are entered to the daily calendar using a few simple keystrokes. A weekly and monthly calendar are automatically updated to reflect the activity. The weekly and monthly calendar displays a larger perspective of the users' plans.

Regularly scheduled daily, weekly, or monthly meetings are easily entered without having to key each entry separately. When schedules are rearranged, changing an appointment is a simple procedure that avoids re-entering the appointment and the details. Even the notes of the appointment can be easily changed. Calendars are private and may not be accessed by other users unless the owner of the calendar designates access to the other users.

- Things to Do: the user enters a Things to Do list in any order. Items on the Things to Do list appear on the daily calendar numbered in order of priority. As priorities change and a new item must be entered to the top of today's list, all other items are automatically renumbered by the system. Any items left undone are automatically carried over to the next day's calendar.

- Meetings with Scheduling: scheduling meetings usually means finding a meeting time convenient for all participants. Using Calendar, the user simply determines how much time is needed and Calendar checks other users calendars and produces a list of several time frames convenient to all meeting participants. The user schedules this meeting on the appropriate calendar page and send an electronic message inviting the other participants to the meeting.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

Health services, administration.

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Ongoing.

4. Desired date for system/application becoming operational

To be implemented in steps starting in 1985.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

See above.

6. Is this system/application related to other existing/planned application(s) that you know of

7. How frequently will system be used (input, processing, output)

Input, daily.

Output, ad hoc.

Processing, on-line.

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

ASO, CS, Technical Units.

9. Will your programme have the budget for system development and ongoing running costs

System development by EURO. Implementation by use of standard software products.

Annex IIm

Region: EURO

Application: Stock Management

New Applications

1. Brief textual summary

For the future, a service in connection with daily/monthly/yearly stock control of the various items in the stationery store should be foreseen.

The service is required for reordering of coded articles as well as for standard and non-standard items from headquarters, therefore the system must be functional compatible with the system being developed at headquarters.

In OSE/OGS headquarters, a feasibility study was carried out for the computerization of two independent manual activities within the unit, namely:

the management of inventories and the distribution of office machines; and

the management of inventories and the distribution of office supplies, stationery and administrative forms.

The study assessed the practicality (and the need for) computerizing such activities.

Based on the analysis of the input/output processing requirements of a computer-based system, the comparative cost considerations between the two options and the variety of readily available microcomputer software packages meeting the information processing requirements, the study recommend that the potential computerized system be implemented using a microcomputer with a suitable software package.

2. Programme area (Health Services, WPC Offices, Supply, etc.)

Aministration.

3. Fixed-period (e.g. Scientific survey/study) or ongoing

Ongoing application.

4. Desired date for system/application becoming operational

1987/88.

5. What input data/information will be made? Output requirement? And, if known, how is the data to be processed

See above. Communication between HQ and EURO should be foreseen.

6. Is this system/application related to other existing/planned application(s) that you know of

Linkage to the AFI system should be studied.

7. How frequently will system be used (input, processing, output)

See item 1.

8. Who could be responsible for the day-to-day operation of the system (just your unit or shared with others)

SUP.

9. Will your programme have the budget for system development and ongoing running costs

It is expected that the commercial software packages can be used.

Annex III

Region: EURO

Existing Word Processing and Related Equipment

1. Word processing equipment

See attached Appendix A and B.

2. Number of users

150 (November 1983).

3. Advanced functions software used

- Index generator
- Mathpack installed (needed for the WHO Terminology System)
- Glossaries or further glossary creation
- Sort option
- Automatic paragraph numbering
- Document merge

4. Specific uses of word processing equipment

In addition to the routine production of documents, reports, letters, etc. the following two specific uses should be mentioned:

- Contributions to the RD's report are input directly by the originating units, thus facilitating editing and avoiding re-typing work.
- The Consultation Letters sent to the Governments (in English, French, German and Russian) are prepared on the word processors. Replies are fed in the word processors, leading to the preparation of the Proposed Programme Budget for the Regional Committee. The process of preparing new Budget documents through the update of the most recent material saves time (about 30%).

5. Level of manpower resources for technical support and training

- 2 part-time Technical Assistants (General Service) for trouble-shooting, contacts with teh local Agent for maintenance services and operation of the telecommunications line with Geneva.
- One and a half person (General Service) for training (refresher and new operators).

Office machines

1. The Office is equipped with the following typewriters:

66 IBM Standard

152 IBM Golf ball

20 Portables (Olympia, Royal, Olivetti)

2. No eletronic typewriters.

3. None.

Other equipment

1.1 Photocomposition equipment: Comp/Edit 6400, including 4 screens in RTS, 1 console, and a diskette converter (Wang to Comp/Edit format).

1.2 Telex equipment.

1 machine

Daily average number of telexes: 90 outgoing - 60 incoming.

Annex IV

Region: EURO

New Word Processing and Related Applications

1. Word Processing equipment

1.a) 1984-85: In addition to the equipment listed under Annex III, it is envisaged to acquire the following:

- 2 LPS 12A laser printers (12 pages/min.)
- 5 Archiving workstations
- 2 Daisy wheel printers
- plus the necessary input/output ports on the Wang VS100 to support the above.

The Office estimates it will need 10 more word processing workstations.

b) 1986-1987

- 10 to 15 additional word processing workstations will be needed.
- In addition to word processing, professional workstations (most probably microcomputers) may be acquired for work such as statistics, graphics, etc.

c) 1988-1989

- Further expansion is envisaged at about the same level as in 1986-87.

2. Number of users

Word processing users are expected to increase by about 50% in 1984-85, bringing their total to 250. No significant further increases are foreseen after that biennium.

3. The Office is planning to make use of the following software tools

- Alliance
- Spelling/verification
- WP+ (a new Wang product under development and allowing split screen, graphics and text, etc....)
- Processing of images

. Planned specific users of word-processing:

Starting in 1984/85, the Office is planning to implement an Integrated Programme Management System. One of the major input would be the content of the Planning Memoranda which would be prepared on the word processors using programme budget documentation as source material, in the originating units. After editing and approval, the data would be retained in the computer and become part of EURO's Programme Management System.

5. Estimated requirements for technical support and training

In 1984/85 a number of word processing operators will have to be trained in the use of the data processing functions available through their combined word processing/data processing workstations. Some professionals will be trained in word processing. In 1986/87 training will have to be organized in the use of professional workstations.

6. Estimation of resources required for equipment and manpower

Consultancy services may be required for text procesing software.

In principle there is no "earmarked" budget for the acquisition of word processing hardware, software or related equipment during the period 1984 to 1987. However, resources could be reoriented or use be made of savings for that purpose.

Office machines

1. With the expanding use of word processing, the Office foresees a decrease in the number of typewriters (estimated at 10% a year).

2. Electronic typewriters may be considered to gradually replace some of the electric typewriters.

3. None.

Other equipment

1.1 In order to cope with peak periods of work a more powerful photocomposition equipment may be acquired to replace the existing COMP/EDIT which produces one page every 4/5 minutes. Alternatively a second unit could be acquired.

1.2 Within one or two years, EURO envisages to acquire OCR equipment for input to the word processors and processing of telexes.

1.3 The Office will study the possibility of developing a computer application for the dispatching of telexes.

1.4 Facsimile transmission could be used between EURO and Geneva as well as London (Thomas Cook for fellowships and Ministry of Health). This would reduce telex traffic by up to 50%.

Appendix A

Distribution of Work stations and Plugs as per 1 January 1984

Building	Floor	Text and EDP CRT, Printer		EDP (only) CRT, Printer		Plugs available
A	0	2	1	6	1	
	1	3	2		1	25
B	0	3	1			
	1	4	2			16
C	1	9	4			
	2	3	2	6	2	64
D						12
E						
H	0	2	1			
	1	14+3*	5+1**			
	2	2	1	3	1	80
33		4	3	1		15
37						
39		1	1			8
		47	23	16	4	220
		70	+	20	=	90

* portable work stations for use at meetings

** laser printer

Appendix B

Total list of Equipment, work stations and printers available in EURO

as per 1 January 1984

		CRT	Printers		
1. Wang (Russian equipment)		2	1		
2. Wang (English, French, German)					
2.1	From the contract (263683)	50	12		
2.2	Present ERGO-2 screens	13			
2.3	Present printers		13		
		63	25	Sub-total	88
2.4	Present screens (fixed keyboard, English only)	14			
		77	25	Total	102
3. Wang (contract 263683)					
3.1	Statistical terminal	1	1		
3.2	Line printers		2		
3.3	Portable text processing	3	3		
4. IBM					
4.1	Present screens	13			
4.2	Present printers		6		
		13	6	Total	19

Annex V

Summary of Requirements

Estimated new applications	Disk space (in Mb)			Number of work stations			Number of printers		
	84-85	86-87	88-89	84-85	86-87	88-89	84-85	86-87	88-89
Annex Ia	130								
Annex Ib	20-25								
Annex Ic	10								
Annex Id	10								
Annex Ie	100								
Annex If	5								
Annex Ig	6								
Annex Ih	nil								
Annex Ii	1								
Annex Ij	27								
Annex Ik	12								
Annex Il	10								
Annex Im	6								
Annex In	4								
Annex Io	nil								
Annex Ip	nil								

Summary of Requirements

Estimated new applications	Disk space (in Mb)			Number of work stations			Number of printers		
	84-85	86-87	88-89	84-85	86-87	88-89	84-85	86-87	88-89
Annex IIa	nil								
Annex IIb		5							
Annex IIc		50							
Annex IId		5							
Annex IIe		200							
Annex IIf		5							
Annex IIg		5							
Annex IIh		10							
Annex IIi	?								
Annex IIj			25						
Annex IIk	nil								
Annex IIl		5							
Annex IIm			5						

Annex VI

Region: EURO

Summary of Manpower and Financial Resources

	1984-85	1986-87	1988-89
Manpower for developmental work (man/years)) Manpower for maintenance of applications (man/years))	2/year[1]	2/year[2,5]	2/year
Financial resources for hardware acquisitions (US$)	60 000[3]	75 000[3]	85 000[3]
Financial resources for hardware maintenance (US$)	65 000[4]	200 000[4]	220 000[4]
Financial resources for software acquisitions (US$)) Financial resources for software maintenance)	10 000	11 000	12 000

1 Plus contractual services, subject to availability of funds.

2 US$ 60 000 foreseen for, among others, programming assistance.

3 Mainly working stations.

4 According to contract with Datalog.

5 It is anticipated that the rationalization effect within the Office will free one post which could be converted into a post of programmer as from 1986/87.

Annex VII

Major New Applications (summary of Annex II)

Region: EURO

Activity/application	1984	1985	1986	1987	1988	1989
Priority level 1						
IIa Conversion of IBM S/34 - applications to Wang VS	----	----				
IIb Management Orientation of selected Existing Applications	----	----	----			
Priority level 2						
IIc Programme Management System (Monitoring) (standard planning memorandum)	----	----	----			
IId Personnel Information System			---			
IIe Bibliographic Services, EURO-DOC	----	----	----	----		
IIf Publication Management System			---			
IIg Enhancements of the Address Register		----	----			----
IIh Statistical Data-base (this includes: HFA monitoring, incl. country profiles)		----	----			
IIi Applications for Technical Programmes		----	----	----	----	----
Priority level 3						
IIj Registry				----	----	
IIk Electronic Mail, Telex, Tele-fax		----	----	----		
III Calendar Management (time management)		----		----		----
Priority level 4						
IIm Stock Management					----	

Annex VIIIa

Region: EURO

Data on Reliability of Installed Hardware

	Acquired on: MM/YY
Make and model	
1. Wang OIS 140	1981
2. Wang OIS 130	1979
3. Wang WPS 30	1977

Memory capacity

VDU terminals

26 VDUs

Disk Capacity

1. 66 Mb
2. 10 Mb
3. 10 Mb

Printer(s)

12

Other

Do you have a maintenance contract

Yes

If so, give cost in 1983

Dkr. 303.840 equivalent to US$ 35 330 (rate 8.6)

If not, estimate cost of repairs for period 1 June 1982 to 30 June 1983

Level of equipment utilization in hours/day (average) for period 1 June 1982 to 30 June 1983

24 hours/day

Mean-Time between failures

Average interruption time

Longest interruption time

Are you satisfied with maintenance services? If not, please explain

Yes.

Indicate suitability of general purpose software used

Other remarks

Annex VIIIb

Region: EURO

Data on Reliability of Installed Hardware

Acquired on: MM/YY

Make and model

IBM S/34 1979

Memory capacity

256 Kb

VDU terminals

13 VDUs

Disk Capacity

Printer(s)

2 line printers plus 3 matrix printers

Other

2 communication channels

Do you have a maintenance contract

Yes

If so, give cost in 1983

US$ 39 277

If not, estimate cost of repairs for period 1 June 1982 to 30 June 1983

Level of equipment utilization in hours/day (average) for period 1 June 1982 to 30 June 1983

10 hours/day

Mean-Time between failures

Average interruption time

Longest interruption time

Are you satisfied with maintenance services? If not, please explain

Yes

Indicate suitability of general purpose software used

Other remarks