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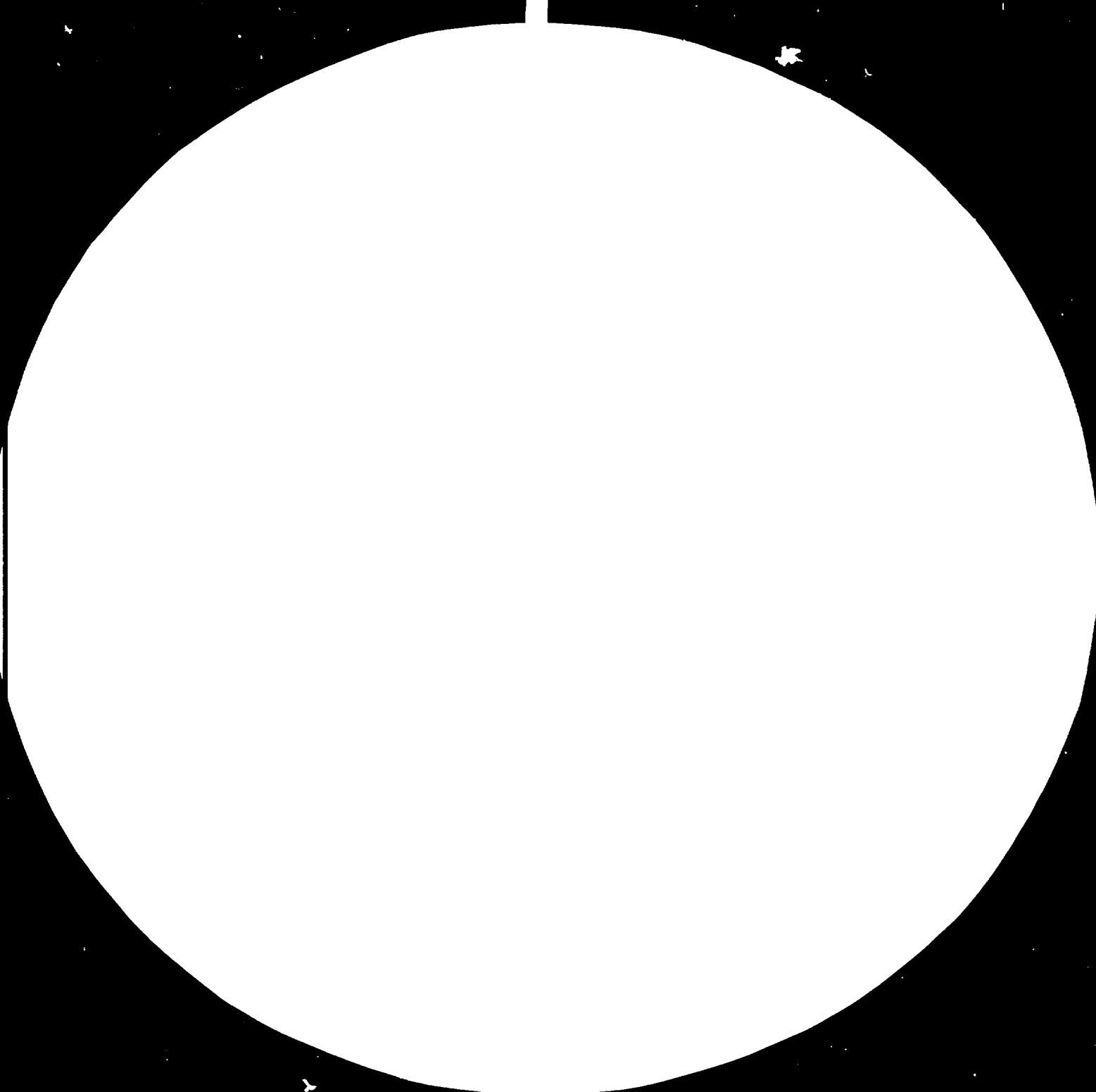
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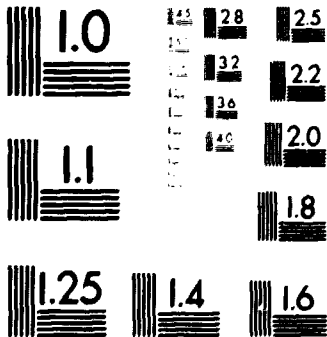
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 (ANSI and ISO TEST CHART No. 2)



18692

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

**FINAL REPORT**  
**PROJECT: DP/RER/87/037**  
**INDUSTRIAL COMPUTERISED SYSTEM**

PREPARED BY:..........

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3 SEPTEMBER 1990

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**CONTENTS**

1. SYNOPSIS
  2. INTRODUCTION
  3. DETAILED REPORT OF PROJECT ACTIVITIES
  4. CONCLUSION
- APPENDIX A. COPY OF UNIDO CORPORATE WIMS LICENCE
- APPENDIX B. COPY OF PIERCE MANAGEMENT SERVICES  
PROPOSAL NO P89/60
- APPENDIX C. VISIT OBJECTIVES
- APPENDIX D. SIGNED WIMS LICENCE AGREEMENT
- APPENDIX E. CONTRACT AND TERMS OF REFERENCE  
DOCUMENT

1. SYNOPSIS

1.1 The project was carried out in accordance with the Authors proposal P.89/60 dated 27 July 1989 and the corresponding contract.

1.2 The project content was to consist of:

1.2.1 Supply of a licence to use two modules of the Works Information Management system (WIMS) computerized maintenance software at one National Focal Point Institution and three industrial nodes in each of the seven participating countries.

1.2.2 Supply of updated software to the corporate licenced point (INORGA in Prague, Czechoslovakia) for onward distribution to the other project members.

1.2.3 Supply of 14 Runtime DataFlex version 2.3b Multi-user packages to INORGA for distribution to each of the project members.

1.2.4 Supply of a mission to the participating countries, countries visited by invitation were:-

Bulgaria  
Czechoslovakia  
Poland  
Yugoslavia

1.2.5 Supply of back-stopping support from the Authors Home Office.

2. INTRODUCTION

2.1 The project was carried out in accordance with the terms of the brief, with the following variation:-

2.1.1 The Mission to the participating countries was initially agreed to be 14 days, after agreement with Mr A Makovets this was reduced to 7 days. These 7 days were used to visit Bulgaria to attend the User Group Meeting together with travel to Poland, Czechoslovakia and Yugoslavia.

2.1.2 The Czechoslovakian National Focal Point Institution (INGRGA) and the Node (SNOP-POLOI, KLADNO) were already licenced, plus 2 others in each of the participating countries, were already licenced to use WIMS, this licence was cancelled and the additional installations were included in the new corporate licence, now allowing a maximum of 28 users.

2.1.3 To obtain from INORGA as many of the Agreement documents for the use of WIMS by the various members of the project.

Some of these were obtained from INORGA and are attached as Appendix D.

3. DETAILED REPORT OF PROJECT ACTIVITIES

3.1 The new corporate licence was signed by the Director of INORGA on behalf of UNIDO on 6 November 1989, and the revised DataFlex version 2.3 WIMS programs were handed over.

A copy of the licence is included as Appendix A.

Distribution of the WIMS programs and documentation was given as a proposal by INORGA to the NFP.

3.2 The DataFlex packages were delivered to INORGA on 2 November 1989. These were then given to the NFP's for onward distribution to the NODES.

3.3 It should be noted that each recipient of a DataFlex package must complete the licence form included in the package and return it to the suppliers as indicated on the form.

The user will then receive a Licence Agreement Number which will be entered into the system in order to prove ownership.

The Authors confirm their willingness to supply upgrades to individual users, or additional packages, but the Licence Agreement Number must be quoted in any such requests.

3.4 The Authors have also indicated availability of additional WIMS licences for more than three nodes in each country, under the auspices of the UNIDO corporate licence for this project, at a cost of £1000 per installation, excluding the relevant DataFlex package.

The cost of the DataFlex Packages will vary according to the number involved in each order, and discounts currently apply to more than 10 packages supplied as one lot.

3.5 The two day meeting of CMMS specialists was convened in Sofia, Bulgaria, 3 and 4 July 1990, attended by representatives of the National Focal Point of Bulgaria, Czechoslovakia, Poland, Hungary and myself.

A separate report of that meeting was prepared by INORGA, a copy of which is not included in this report. It is understood that UNIDO are in receipt of this document.

3.6 Part of the project was to attend various user sites and National Focal Points with the following objectives as shown in Appendix C.



3.6.1 Polish Report

WIMS Installations:

The Zaklady Azotowe Steel plant at Tarnow just outside Warsaw was visited.

The attached report has been re-produced by ourselves taken from the Institutes original.

The main conclusion to this implementation is that generally the client is happy with the installation plus training/support provided by representatives of the Institute, however, training and funding from the steelworks does not appear to be available.

They wish to have access to the WIMS Source Code, allowing themselves to carry out alterations, enhancements to the system.

This has been denied at present, hopefully allowing support etc to be carried out by the Institute.

## Report on the WIMS Implementation in the Non-Ferrous Rolling Mill

/late Norblin/ in Warsaw

/states on 30 June 1990/

According to the agreement between the Institute for Economics of Chemical Industries in Warsaw and the Non-Ferrous Metals Rolling Mill / late Norblin / in Warsaw, the WIMS implementation in this plant was commenced in the first half of 1990. Implementation programme consisted of the following activities:

### 1. Initial Stage: The Object Identification and Preparatory Tasks.

A series of workshops was organised in order to acquaint the plants managerial team as well as the local maintenance and EDT service with the structure and function of WIMS. Construction of the implementation programme was an integral part of the meetings. On the other hand, specialists from the Institute were acquainted with both organization and activities of the maintenance service including:

- Speciality of technical equipment in the factory.
- Existing maintenance documentation
- Existing planning and ordering procedures, for maintenance service and keeping record with the above data
- Coding systems applied in the factory documentation.

Introduction of the locally used codes of technical equipment into the WIMS has been considered as possible and proper, particularly in relation to their meeting the national asset booking requirements.

It was also decided that the WIMS implementation would be assigned to the Chief Technical Engineer - the future user of the system.

Local MDF Centre would participate in the implementation only temporarily.

### 2. Implementation Stage

To use time efficiently, we started work with the English version of WIMS. During filing data and testing files, the Polish version replaced the English one. The implementation group in the factory received also the WIMS documentation translated into the Polish language.

## Implementation Works included:

- 2.1 Coding objects which were required by the system, Header Codes, Assets Codes, Items Codes etc. As mentioned previously, Asset Codes existing in the factory were used for the WIMS implementation. This coding structure enabled us to develop the Asset Code to two additional levels, hierarchically submissive. Other codes were prepared for the exclusive WIMS application.

As for the Account Code, we decided to assign costs, in the first stage of implementation, to a department in which the Asset being maintained has been installed. This corresponds with the method of booking maintenance costs in the plant.

- 2.2 Filing WIMS data and testing them, the "real" data.

Filing the following data has been advanced in approximately 90%.

- Asset File
- Jobs File
- Advice Notes File
- Check List File

Because of the special, also external, supervision over the elevators as well as for very strict discipline of the maintenance programme, considering this group of Assets, the elevators which are very numerous in this factory have been filed first. Existence of a comprehensive technical documentation for elevators helped us to create the Jobs File and the Advice Notes File. The Job File has been modified by assignment jobs to particular maintaining brigades. In such a way the jobs planning and ordering corresponds with the specialistic electrical, mechanical automatic etc. brigades.

3. Comments on the Implementation

Preparatory tasks required by data filing is a labour - consuming extra duty for technical services of the factory. However, in their opinion, the system, an implementation itself imposes discipline, forcing activities which make order and organize the technical equipment exploitation, documentation ordering and updating, verification of the maintenance cycles, the maintenance labour - demand standards etc.

Data required by WIMS is generally available in the existing documentation but its' transformation into the form suitable to the system as well as data loading into memory are labour-consuming.

Inconvenience of loading the repetitive data has been noticed. For example in the Advice Notes File there are numerous records with similar or identical maintenance scope for elevators. There is no opportunity to load automatically the same elements of description in various Advice Notes. Some inconvenience consists of lack of file protection against both: the access of non-authorized people and a damage of files.

It has to be admitted that the WIMS implementation needs additional effort from the technical personnels side, but this is characteristic for implementation of all computerized systems.

Updating system files in the course of the systems exploitation should be much easier in terms of time demand and moderated by expected advantages resulting from the system usage.

Intensification of data filing, so that it could have been finished by the end of September has been considered as necessity. Recent establishment of the WIMS operators post in the Chief Mechanical Engineer Department will be advantageous for this task.

3.6.2 Czechoslovakian Report

WIMS Installations: POLDI-SNOP Steelworks, KLADNO.

The WIMS system is installed in the SNOP-Poldi Steelworks at Kladno and is used for the maintenance of cranes and associated equipment.

It is understood that the system will not be extended within the steelworks. INORGA, I understand, have tried, unsuccessfully to include any further nodes.

The attached report has been re-produced by ourselves taken from INORGA's original document.

The main conclusion to this implementation is that the representatives of the Kladno Steelworks do not think that the system is adequate enough to cope with a large plant.

The implementation should be broken up into sections of the plant, and additional personnel and resources should be provided to carry out further implementation.

It appears that personnel at the Steelworks are unaware of the enhancements/modifications that have been carried out by other participants of the European Project.

## The WIMS System Usage and Further CMMS Development at POLDI SO Kladno.

The implementation of WIMS at POLDI Kladno met a lot of obstacles. One of them was the fact that a part of activities, e.g payroll and materials management are processed centrally at the enterprise level. Other areas of activities are processed in more details than allowed by WIMS. It means that parallel operation of WIMS and enterprise subsystems would lead to data duplicities. Current conditions of materials and spare parts delivery represent another obstacle. The contracts for materials and spare parts deliveries have not been fulfilled and sometimes the suppliers have not been willing to sign a contract for deliveries of materials and spare parts in shortage.

The WIMS system is suitable especially for small enterprises which can use quality services and have no problems with continuous shortage of spare parts.

Independent and directive management is not only production enterprises, but also production units, centres and workshops is being stressed. Maintenance activities in a high quality are required by customers at present. The customer is interested to know in advance a cost specification, especially of large and medium repairs. Costs are divided into direct wages, materials consumption and other direct costs. The customer can compare total costs of repair with planned amount of financial means available. Costs can be divided also according to maintenance character ie machines maintenance, electro maintenance, building maintenance, electrotechnic maintenance. A great attention is paid to the materials costs, which create the significant part of the total maintenance costs.

They have contacted other enterprises but have stopped at the moment due to changes in Managers and enterprises, CK N semi-conductors, Prague are interested however and discussions are going on.

3.6.3 Bulgaria Report

WIMS Installation: DF "STOMANA" - PERNIK Electrical Steel Plant.

Arrangements to visit the Stomana Company Steelworks were not made therefore no visit report has been made.

The attached report has been provided by representatives of the National Focal Point relating to the Company, History and Implementation.

Other WIMS installations have not been implemented mainly due to the National Focal Point not being paid by their clients for their time, training and implementation assistance. It appears that they are trying to resell the system in order to generate income.



## STOMANA STEEL COMPANY - BULGARIA

1. STOMANA Company was founded in 1953 as a state enterprise producing steel grades and rolled products for machine-building and civil engineering. It works under full metallurgical cycle and comprises:

- Sintering shop
- Blast furnace shop
- Siemens-Martin Shop
- Electric steelmaking plant, including
  - 3 EHP electric arc furnaces, 100 tons each
  - 2 continuous casting machines (slabs and blooms)
  - scrap yard
  - highly developed infrastructure providing tools and bulk and alloying materials
- Heavy plate mill
- Section mills
  - "500" heavy section mill
  - "250" light section mill
- Thermal treatment and calibration shop
- Steel Balls Mill

There is a highly developed infrastructure in the company providing media (electricity, oxygen, nitrogen, argon, compressed air, steam, water etc) as well as transport and communication system including its own truck and railway transport and communication network.

Since its foundation, the Company has continuously been enlarged, reconstructed and modernised.

### 2. Overview of Maintenance in STOMANA Company

Along with the production structure mentioned, the Company includes many units connected with repairs, maintenance and different types of services of assets, personnel etc.

#### 2.1 Maintenance Functions and Organisation.

Centralized Maintenance under Functional Head.

Maintenance Offices are subordinated to the production manager and they are distributed in several directions as follows:-

### 2.1.1 Mechanical Department

- Mechanical Equipment repairs shop consisting of complex and specialized teams and performing overhauls and larger planned and preventative repairs.
- Spare Parts and tools production plant including:
  - Foundry
  - Forge Shop
  - Mechanical Shop
  - Assembly Shop
  - Its own store for spare parts, tools and materials.
- Centralized store for spare parts and tools
- Maintenance co-ordination units
- Spare parts and tools delivery unit
- Inspection Unit
- Maintenance organisation improvement and development unit.

### 2.1.2 Energy Department

- Electrical equipment inspection unit
- Thermal energetics unit
- Maintenance co-ordination unit
- Electrical equipment manufacture and reconditioning shop.
- Electrical diagnostic laboratory
- Centralized store for electrical materials
- Units connected with media production and distribution.

### 2.1.3 Automation Department

- Instrumentation and automation systems maintenance shop.
- Communication systems maintenance shop
- Weights and Measures Office
- Design Office

#### 2.1.4 Other Maintenance Services

Additional units performing maintenance activities and not included in the above departments are:-

- Auto-service station
- Railway lines and rolling stock maintenance unit
- Buildings, roads and sewerage maintenance shop.

Corrective and preventative maintenance is mainly performed by Company's own personnel included in the above mentioned departments and units excluding:-

- Furnace refractories repairs
- Maintenance of some special machines and systems as air conditioning, fire alarms and fire extinguishing systems, etc.

#### 2.2 Maintenance Personnel

The amount of maintenance personnel exceeds 2500 persons and the total amount of personnel in the company is about 9500 persons. Maintenance costs vary but are within the bounds of 10% - 15% of the total production costs.

#### 2.3 Spare Parts

The company produces 40% - 45% of the yearly spare parts demands. The rest of the quantity is provided by other Bulgarian companies or import.

There is a trend toward expanding the number of items and total amount of spare parts and exchangeable units which are the Company's own production.

#### 2.4 Maintenance Strategy

The typical working time of the maintenance production facilities is 24 hours daily. The average availability of the main production equipment depends on its type, level of extensive loading, technical conditions, maintenance quality etc, and amounts of 76% - 93% of a calendar year.

Our Company has good traditions in managing maintenance processes both in preventative maintenance and in large repair and reconstructive operations.

The basic maintenance strategy is the annual planning of overhauls and preventative repairs (preventative Maintenance). The annual schedules are usually prepared by taking into consideration the constant loading of the maintenance resources and the meantime between repairs determined as a result of long experience. Basic factors influencing schedules fulfillment are:

- Readiness for the repair respective
- Production urgencies and production conditions (for example production stops caused by lack of raw materials or other reasons not connected with equipment condition)
- Condition of the equipment

Under the influence of the above factors it is possible to change, in reasonable limits the dates for the repairs to be carried out, which gives the system some characteristics of the total productivity/efficiency strategy. Usually the efficiency of the maintenance and production tasks is estimated by the company's experts without using any formal procedures.

Maintenance work duration and necessary resource are defined on the basis of written maintenance procedures checked in practice and periodically corrected.

There are detailed maintenance technologies and procedures developed for most of the equipment delivered and installed after 1980. This is a good background for a modern computerized information system and decision making.

The maintenance of a small part of production equipment, some special machines and electronics units is based on the breakdown maintenance strategy in case the change of weak assemblies is cheaper than their repair.

Delivery of modern diagnostics equipment and diagnostics office formation is planned by the Company's management to be done in the near future. This is considered as a prerequisite for condition based maintenance strategy implementation.

### 3. Computerized Maintenance Management Systems in STOMANA Company.

#### 3.1 History

From management point of view maintenance in the steel industry is quite complex system because of:

Strong relationships with other management areas:  
production, personnel and finances etc.

- Necessity of balancing and coordination of different resources.

Other factors influencing the maintenance of the equipment if our Company is in a proper condition are:

- Continuous growing up quantity and complexity of equipment in the last ten years.
- Spare parts and maintenance services prices increasing.
- Difficulties in spare parts and consumable materials deliveries (97% of equipment has been imported from different countries).
- Inadequate constructive and maintenance documentation of equipment delivered.
- Problems in managing maintenance resources because of the wide scope of maintenance activities, large numbers of maintenance jobs and so on.
- Lack of written maintenance procedures and technologies in some production areas necessary for proper management.

Two main frame computers are running in the Company's computer centre. More than 140 terminals are spread all over the Company. A lot of their own projects are used for solving some problems with material flows control, production control, personnel control etc. for the Company as a whole. Many working places are equipped with personal computers and there are traditions in using them. First steps in using PC-networks are made. Necessary personnel for system analysis, system design and programming is available.

Since the early 80's several separate projects in the maintenance area have been developed and implemented, such as:

- Spare parts manufacture planning and reporting
- Spare parts manufacture costs analysis
- Inventory accounting, purchase control and contract follow up (in the frame of a whole project for accounting and material tracking in the Company)

Because of the large scope of work and some organisation problems the project for making a catalogue of all the equipment was not realised. Some other systems were partly implemented and their usage did not produce the results expected.

A large discussion on the maintenance problems was held in the beginning of 1987. During the discussions, the guidelines of the maintenance itself and the maintenance management development were highlighted. In the same time Company's management took into account the following:

- Development of a comprehensive application CMMS package is a time and money consuming process.
- Maintenance is standard activity for the most of the companies and does not depend on the political and economical environment. It depends mainly on the type of equipment and maintenance strategy practised, maintenance resources and services available etc. Most of the CMMS packages in the different branches consist of the same functions and modules. The type of the computers used depends on the size of data base and does not depend on the type of equipment maintained.

Above mentioned reasons and the considerable maintenance costs caused wide discussion as a result of which a decision was made for taking part in UNDP/UNIDC regional project, RER/87/036 providing basic CMMS package for PC Local Area Network.

The main purpose was to save time and money through:

- Translation in Bulgarian of a completed and tested in the field package.
- Upgrading and customizing in a short time.
- Fast implementation as a shop maintenance management system.

Having the package spread as a local shop system a project has to be initiated for integration within the Company's Management Information Systems - production control, spare parts manufacture, planning and reporting, stores control, budget control etc. run on the large scale computers. Fast incomes and higher total efficiency are expected from the separate implementations.

### 3.3 Some Advantages:

Such an approach gives the following advantages:

- Fast implementation in shops and department where all the prerequisites already exist.
- Lower expenses and higher benefits
- Easier implementation since PC's are usually more acceptable from end users point of view.
- Less psychological problems
- Higher system reliability since LANs and their data bases are comparatively independent on the current status of the integrated computer system.
- End user has the opportunity to install many other applications available on the market on the same hardware.

## 4. Implementation

### 4.1 Implementation Steps

For pilot implementation of DP/RER/87/036 application program package (WIMS) the automation department of the electric steelmaking plant was chosen. The following activities were carried out:

- Project team assigning and training
- Development of whole maintenance organization improvement project using WIMS, as well as necessary standards and procedures.
- Application programs package translation and customization.
- Plant management and automation department maintenance staff training.
- Delivery and installation of necessary hardware

### 4.2 Number of Asset Records collected

In the course of implementation 856 Assets and 6285 items of spare parts and materials were covered.

### 4.3 Manpower Costs

The total manpower expended on the implementation amounts to 16 men/months including:

- Translation in Bulgarian - 8 men/months
- Implementation - 6 men/months
- End user training - 2 men/months

Since the program package customizing according to some special requirements of STOMANA Company's electrical Steel making Plant was done together with the translation and implementation it is not possible to give information for the resources put in that work.

The above mentioned figures do not include the expenses for maintenance organization projects and standards and procedures development since those activities were carried out by specialized institution under separate contract.

#### 4.4 Step-by-step Implementation

Choosing implementation sequence company's management accepted on approach of parallel and step by step realization depending on the conditions and prerequisites existing as:

- Maintenance standards and procedures
- Computer available and computer basic knowledge
- Level of qualification and motivation of staff involved and their own capability to distribute and multiply the system in the other departments of the shop.

This is not the shortest way regarding the fast gaining of effect (pay back) of investments but it does provide a stable prospective and reliability of the implementation process. Having in mind these considerations the automation department of the electric furnace plant was chosen as a WIMS installation. This department is in charge of the repair and maintenance of the instrumentation and control equipment electronic units, computers and automation systems. Highly qualified specialists work there dealing also with PC-Programming.

In the very beginning of the project implementation a group of specialists from this department was included in the team responsible for making a catalogue of the available equipment and the necessary standards and procedures for introducing the program package, as:

- Manpower and requisite norms for maintenance operations fulfillment
- Lists and consumption of spare parts, materials and tools
- Maintenance and construction documentation catalogue
- Priority maintenance procedures
- Information system for the certificated equipment subject to meterological control, etc.

The system is applied to the installed equipment of all basic units in the plant. At this moment data is being introduced for the weighing systems and equipment.



A project is under preparation for the future covering by the system of the mechanical and electrical equipment in the plant. The key problems are connected with conforming the existing maintenance standards and procedures to the package requirements and with installing PC LAN.

5. Benefits

After the implementation of the whole system in the electric steelmaking plant the expected benefits are:

- Introducing of spare parts inventory control, their distribution and monitoring by maintenance orders: at annual consumption of spare parts and materials of 4,220.000 levs (according to figures from 1988) the expected annual saving is 125.000 levs.
- Production costs decrease as a result of the main equipment downtime decrease by 2%: expected saving of 150.000 levs yearly.
- Improved training and distribution of the maintenance personnel leading to decreasing the number of maintenance workers with 5% minimum: expected saving of 50.000 levs yearly.
- Energy saving by at least 2%: 45.000 levs yearly.

The total saving of 370.000 levs minimum is calculated without taking into account the influence of the following factors:

- Planning improvement of the demands of spare parts, materials, assemblies and semi-products
- Reduction of losses in man-hours for repair and maintenance.
- Condition provision of a better estimation of maintenance personnel labour etc.

Summed up, one time costs for the system implementation in electric steel making plant amount to 190.000 levs including:-

- Hardware - 75.000 levs
- Translation and Adaption - 50.000 levs
- Implementation - 55.00 levs
- Education and Training - 20.00 levs

The annual operation costs including amortization (annual depreciation) are 17.500 levs.

Total maintenance costs in the electric steel making plant are 14,200.00 levs, distributed in the following way:-

- For mechanical equipment - 9,400.000 levs
- For electrical equipment - 3,6000.000 levs
- For automatic equipment - 1,200.000 levs

This distribution shows that the Company management puts their greatest hopes in the system application for the mechanical and electrical equipment. Thus the index of economic effectiveness per one lev is approximately 1,9.

## 6. Future Activities

It could be noted that the system delivered (WIMS) covers relatively well the functional radius of action of a typical shop maintenance management system. Taking into consideration further needs of the maintenance personnel it is expected some extra modules to be developed and added to the system as:-

- Technical documentation
- Maintenance personnel
- Tool and facilities
- Spare parts and materials accounting
- Interface to CAD system
- Interface to automated diagnostics system
- Interface to bar code system

It is also planned in the frame of an all-round maintenance development project:-

- To update long-term goals of the maintenance strategy
- To invest efforts in improving maintenance resources.
- To implement an automated spare parts store system.
- To improve the maintenance organizational structure with a view to gradual centralizing of the main maintenance functions and resources.
- To improve the equipment condition monitoring and inspection system (including automated diagnostics).
- To increase gradually the part of equipment maintained according to Condition Based Maintenance Strategy.
- To develop maintenance standards and procedures for all basic machines in order to provide prerequisites for CMMS implementation.
- To train maintenance managers in CMMS and to increase continuously the qualification of maintenance personnel.
- To improve the motivation system of both maintenance and production staff with the purpose of total production efficiency increase.

As it was mentioned before, the next step for expanding WIMS application will be the coverage of the whole equipment of the electric steelmaking plant. The pilot implementation results revealed that in order to meet the requirements of the end users it is necessary when expanding the functional product range a higher priority to be given to the development of modules for maintenance personnel and technical documentation.

Package functions on maintenance activities planning are also to be modified on the basis of the existing planning and reporting practice of the overhauls and preventative maintenance. The future step-by-step package application in the other production areas will be finally decided on the basis of the results shown in the electric steel making plant.

Along with the WIMS modification, expansion and implementation a modern application program package is under development for spare parts and tools production control based on PC LAN. Activities are intended on maintenance system integration through adding modules for:-

- Data Integration
- Maintenance gross requirements planning
- Spare parts, tools, semi-products requirements planning etc.

Moreover, WIMS and the spare parts production control system are viewed as autonomous parts of the integrated system. Their integration will be done via main-frame computers.

0004 Yugoslavian Report

WIMS Installation:

1. PAPIRNICA VEVCJE - Vevvska 52, 61260 Ljubljana  
(Paper Factory)
2. DELAMARIS - 66310, Izola  
(Fish conservation factory)
3. ISTARSKJE VODOVOD - Sveti Ivan br.8, 51420, Bozet  
(Water Supply Enterprise)

Sites 1 and 2 were not visited due to the small amount of implementation carried out.

Both sites have local PC's installed with the WIMS software.

A small amount of consultancy has been carried out by representatives of the National Focal Point (INCOME GENERATION). Both Assets and Planned Maintenance tasks have been discussed and these enterprises are at present collecting the relevant data.

Changes in staff at the paper mill will however cause a delay in the implementation, further training has been scheduled and the clients apparently are well satisfied with systems and installations as carried out todate.

## THE ISTARSKI VODOVOD

The Istarski Vodovod Water Supply Company was visited and the implementation appeared to very well organised. There was a very good working relationship between both parties.

The Company has two main plants, the Headquarters (the oldest plant) is located in Buzet, was built in 1943 and supplies water to the central and west coastal area of Yugoslavia. The other site is located at Giradole and was built in 1970, again supplying the west coast, however, having quadrupal pumping capabilities. (Currently a network of piping over 1400 km's). An extension is currently under construction.

The complete network has eight large pumping stations, 6 sites without resident staff and 2 sites with staff situated on site.

Over 80 reservoirs supply water to over 60 stations which house reducing pressure facilities. Some 305 workers are employed for the complete operation.

The maintenance workforce amounts to 42 staff, including electrical, mechanical, specialist mechanics (water meters) and electronic specialists, all based at Buzet. A small maintenance staff are located at the other site, however, specialists travel to each site.

### WIMS Installation

Two pilot areas have been completed, one at each unit. In-house staff have collected and input the relevant data. It is planned to complete the task and have a full operational implementation by the end of December 1990.

A very comprehensive manual system has been in operation since 1981 (this manual system was created initially by the National Focal Point, therefore the documentation was of a standard format and very easily translated into the WIMS format).

Training and consultancy has been provided by representatives of the NFP over some 6 months and has been very well received.

The client, although having a very good manual system found it to be labour intensive and could not provide the analysis of todays requirements. By the implementation of WIMS, this has now been achieved, they realize that having generated a well constructed and organized CMMS the benefits will be available in terms of cost and efficiency.

The main conclusion to this implementation is that communication between the client and NFP is extremely good.

Efficient training/consultancy has been provided together with great enthusiasm from the client, and has generated a good implementation.

I feel sure that the other two sites will provide further good implementations, and will be a credit to the representatives of the NFP.

3.7

In order to complete this report, I requested from the participants of Hungary, Portugal and Cyprus information relating to their installations.

However, this information has still not been received, and hence the extent of the installations in these countries is not known.

4. CONCLUSIONS

- 4.1 A reminder is again considered to be in order relating to registration of the DataFlex packages.
- 4.2 A further reminder is felt to be justified regarding distribution and registration of the WIMS supplies to member countries.
- 4.3 Further discussions and meetings should be arranged and ALL member countries to be present in order to discuss progress and implementation.
- Identify modifications carried out to date and their applications to all users within the project.
- 4.4 Consideration to be given for further support to the NFP relating to assistance in implementation. Typically, in Poland, the end user has a requirement to support and alter the software application. As agreed previously, the source code will NOT be given to the NODES, however, the NODES are not willing to fund the NFP institution to carry out these enhancements.
- 4.5 The full implementation of the enhancements to WIMS as carried out by various members of the NFP's and the inclusion of these to create a working system for all participants of the project.
- 4.6 The Authors wish to express their willingness to continue participating in this and similar projects, but must stress that each individual National Focal Point Organization and nodes can only attain cost effectiveness by good communication and training.
- The installation at the Water Company in Yugoslavia appeared in our opinion to be a model installation.
- 4.7 The Authors acknowledge and thank officers of UNIDO, INORGA and the National Focal Point Institutes that extended help and hospitality during the visits to various countries.

Finally, a recommendation is included that the Authors should be commissioned to make distributions of the WIMS programs to the users entitled under the corporate licence, in order to relieve INORGA of the large and complex administrative tasks involved.

T C Hubbard  
Pierce Management Services

3rd September 1990



APPENDIX A  
COPY OF UNIDO CORPORATE WIMS LICENCE

THIS LICENCE CANCELS AND REPLACES LICENCE P1188  
DATED 6TH FEBRUARY 1989

Licence Agreement No: P0989

Agreement for Use of the Computerised Works Information  
Management System (WIMS)

We UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANISATION  
(hereafter called "the Licensee")

of VIENNA INTERNATIONAL CENTRE, A-1400 VIENNA, AUSTRIA

wish to acquire a right to use the computer software known as the Works Information Management System (WIMS) (which, together with any associated information, additions, modifications and updating material, shall be hereinafter called "the WIMS Package"). We acknowledge the ownership rights of the Secretary of State for whom Pierce Management Services (hereinafter called "the Agents") market the WIMS package.

In consideration of the payment by the Licensee (within 30 days) of the licence fee £30900.00, the Agents hereby agree

- (a) to supply the WIMS package for use on A MAXIMUM OF 28 (TWENTY-EIGHT) IBM PC OR COMPATIBLE COMPUTERS AS DETAILED IN THE APPENDIX.
- (b) to grant a licence to use the WIMS package for a period as described in condition (8) below.
- (c) to the copying of the programs and documents in the WIMS package as necessary for use solely in the installation nominated in (a) above.

The Licensee agrees to notify the Agents of any intention to use the above WIMS package on any additional computer installations (Central Processor Unit/Disk Drive System) and to pay a copy fee in respect of every additional WIMS installation, unless special arrangements have been made for a multi-user licence.

The licensee agrees to accept the following conditions:

- (1) Ownership and Property Rights.
  - (a) The WIMS Package shall remain the sole property of the Secretary of State.
  - (b) All patent, copyright and other industrial property rights shall remain the sole property of the Secretary of State who reserves the right to sell the WIMS Package to any party or parties as he thinks fit.

- (c) The licensee shall at all times ensure that the programs and documentation which form part of the WIMS Package be clearly marked "Crown Copyright Reserved" by the relevant year of first publication and a notice in the following terms:

"The material herein remains the property of the UK Crown and is UK Crown Copyright. It may only be used as stated in the licence agreement no P0989 and it may not be reproduced, adapted or used for any other purposes without prior written permission of the Agents, acting for the Secretary of State.

(2) Modifications

- (a) The Agents will supply, subject to the Licensee paying necessarily incurred cost, copies of all relevant refinements to the originally supplied programs which may from time to time be issued by the Secretary of State to the Agents.
- (b) The Licensee shall be entitled to amend the WIMS Package by updating it, making improvements, modifications and/or innovations, (hereinafter called "the Amendments"), on condition that the Licensee notifies the Agents in writing of the Amendments within one month of amendment action.
- (c) The Crown shall be entitled to a free, irrevocable and non-exclusive licence to copy the said amendments and to use for its own purposes within the NHS estate or similar areas of Crown responsibility, but excluding use by non-Crown controlled commercial users, unless with the specific written authority of the Licensee.
- (d) Additional programs which may be added by the Secretary of State to the WIMS Package as supplied at the date of this agreement shall be offered by the Agents to the Licensee when such additions are made available to the Agent by the Secretary of State, at a price to be determined and quoted at the time that the additional programs are made available.

(3) Publicity.

All publicity about or referring to the use of the WIMS Package by the Licensee shall be subject to the prior written agreement of the Agents, acting for the Secretary of State.

(4) Warrant.

The Agents accept no liability whatsoever in respect of any failure or defect in the WIMS Package causing any loss, damage or injury (including injury resulting in death) to any property or person (including and without prejudice to the generality of the foregoing any servant, employee, agent or licensee of the Licensee) arising in any way out of or in connection with the use of the WIMS Package or the amended WIMS Package or any part thereof. The Licensee shall indemnify the Agents against all costs, charges, expenses, actions claims and demands in respect of any such loss, damage or injury.

(5) Security.

- (a) The Licensee shall be responsible for the safety, care and protection of the WIMS Package or any parts thereof.
- (b) The Licensee shall effect and maintain adequate security measures to safeguard the WIMS package from theft, unauthorised copying or access by any person other than his servants or employees.
- (c) The Licensee shall take all reasonable precautions to maintain the confidentiality and integrity of the WIMS Package without the prior consent of the Agents acting for the Secretary of State.
- (d) The Licensee shall instruct all staff having access to the WIMS Package to comply with the above requirements.
- (e) In the event that the WIMS Package or any part or parts of it should come into the hands of a third party through the Licensee or any employees, or former employees, contrary to the terms of this licence, the Licensee shall compensate the Agents for any claims made on the Agents by the Secretary of State.

(6) Licenses.

- (a) The Licensee is not permitted to grant licenses of the WIMS Package to any third party.
- (b) The Licensee shall not, without the prior written consent of the Agents, acting for the Secretary of State, sell, lease, assign or part with any benefit or with any of the rights granted herein or otherwise make available for any purpose whatsoever whether gratuitously or for valuable consideration the WIMS Package or any part thereof of any information in respect thereof to any person or persons or company.

(7) Suitability.

The Agents offer the licence on condition that the Licensee has satisfied himself as to the suitability of the WIMS programs for his particular local circumstances, including the suitability of the computer on which he intends to run the programs. Such condition shall not negate the normal Common Law rights existing between buyers and sellers.

(8) Duration.

This licence shall come into effect on the date of signature hereof and shall remain in force for an initial period of five years subject to those rights of termination contained in condition (9) hereof. If the licence has not been terminated under condition (9) hereof at the expiration of the aforesaid five year period then the Licence shall continue in force subject to the same rights of termination.

(9) Termination.

- (1) In the event of non-compliance with the Conditions of this Agreement and the Licence hereunder, the licence may be terminated by either party giving to the other not less than one month's notice in writing, and upon termination of the Agreement the User shall certify to the Agents in writing that the package and all relevant documentation and information in any form connected with the Package and any copies thereof have been destroyed.
- (2) Termination of this Agreement howsoever caused shall not release the User from any duty or obligation of confidence which falls on him under this Agreement or under the general law governing confidential information nor shall it prejudice or affect any right, action or remedy which shall have accrued before termination or shall accrue thereafter to either party.

- (3) In the event of termination in accordance with condition (9) (1) above being caused by non-compliance with the Conditions by the Agents, full or partial refund of purchase monies paid by the Licensee shall be subject to mutual agreement between the parties. In the event of a failure to agree such refund the matter is to be referred for arbitration to DHSS, Works Group, representing the Secretary of State as the Owner of the WIMS Package, with whom the User shall have the right to renegotiate a reissue of the Licence at the discretion of the Secretary of State.

(10) Notices.

- (1) Any notice, consent and communication authorised or required to be given hereinafter for the purposes hereof shall be deemed to be duly given if left or sent by first class post addressed to the User at his last known place of abode or business or address of its registered office or if sent by cable or telegram so addressed and confirmed by first class post in like manner and by the User if sent by first class post, or if sent by cable or telegram, and confirmed by first class post in like manner.
- (2) Any such notice if served by first class post, cable or telegram shall be deemed to have been given at the time when it would have been received in due course by first class post, cable or telegram respectively, and in proving service of such notice it shall only be necessary to prove that the letter, cable or telegram containing the same was properly addressed and (if necessary) pre-paid and put into the post or left at the office of the cable company or the Post Office as the case may be.
- (3) This Agreement shall be construed as a contract made in England and shall be subject to English law.

(11) Definition.

The "WIMS Package" referred to in this agreement relates to the following Programs THE ASSET MANAGEMENT MODULE, STOCK CONTROL AND PURCHASE ORDERS MODULE (DATAFLEX 2.3 VERSION).

Signed on behalf of:  
Pierce Management Services.

Signed: *Timothy Charles Hubbard*  
NAME: TIMOTHY CHARLES HUBBARD  
Position: PARTNER

Signed on behalf of  
the Licensee.

Signed: *Dagmar Terepova*  
NAME: DAGMAR TEREPOVA  
Position: CHIEF EXECUTIVE  
OFFICER

Date 6TH NOVEMBER 1989

Ref: WIMP0989.AGR

WORKS INFORMATION MANAGEMENT SYSTEM (WIMS)

LICENCE NO: P0989

LICENSEE: UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANISATION (UNIDO)

APPENDIX

This licence is issued for a maximum of 28 (twenty-eight) installations in establishments participating in UNDP Project DE/RER/87/036. The 28 nominated installations consist of one National Focal Point Institution and one node in each of the following participating nations:

Czechoslovakia  
Bulgaria  
Cyprus  
Hungary  
Yugoslavia  
Poland  
Portugal

The Licensee must inform the Agent of the Name, address and contact at each of the 28 installations as issues are made.

Installations in addition to the 28 above must be the subject of additional licensing which the Agent will supply on request.

Ref: WIMUNAP1.LIC

4/80



APPENDIX B

COPY OF PIERCE MANAGEMENT SERVICES PROPOSAL NO P89/60



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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PROPOSAL NO. P.89/60 - DP/RER/87/036 037

Industrial Computerised System

Prepared by

A handwritten signature in dark ink, appearing to be "T.C. Hubbard".

T.C. Hubbard: Managing Partner on behalf of Pierce Management Services

27 July 1989

Pierce Management Services  
Dickenson House  
30 Albion Street  
Chipping Norton  
Oxon OX7 5BJ  
United Kingdom.

Tel: +44-608-41901  
Tlx: 83448 PMS G  
Fax: +44-608-41881

REF:UNIDOEUI.PRO

## CONTENTS

1. SYNOPSIS
2. INTRODUCTION
3. OUTLINE OF PROPOSALS
4. DETAILED PROPOSALS
5. COST ANALYSIS
6. INVITEE'S ANALYSIS OF COST PROPOSAL
7. CONCLUSION

1. SYNOPSIS

1.1 This proposal has been compiled in accordance with the contents and attachments of a Request for Proposal No:P.89/60 made by the United Nations Industrial Development Organisation (UNIDO) dated 17 July 1989.

1.2 Due consideration of the attachments to the Request for Proposal as detailed in paragraph 12 of the Request for Proposal has been taken and it is noted that the specific Terms of Reference relating to this contract will prevail in the event of discrepancy between the Terms of Reference and the above mentioned attachments.

1.3 Attention is drawn to paragraph 19 "Title Rights" in the General Conditions of Contract and in particular to the entitlement of UNIDO to Copyrights.

The major parts of this proposal relate to the supply of computer software and licences to use that software, where Copyright is not transferable to the end users.

1.4 This Proposal contains a fixed price offer of £23136 for supply of software, training and back-stopping support to seven project participating countries.

1.5 The proposer's personnel to be involved in the project are the same as those detailed in the earlier contract completed for UNIDO project No DP/RER/87/036, duplicate Personal History Statements have not therefore been included.

## 2. INTRODUCTION

- 2.1 The basis of the proposal is the supply of two copies of the computerised WORKS INFORMATION MANAGEMENT SYSTEM (WIMS) to each of the National Focal Point Institutions involved in the Regional Project DP/RER/87/036.
- 2.2 One of the institutions (INORGA) in Czechoslovakia is already licensed to use the system, together with nodes in the six other participating countries, and the intention is to extend that licence to provide the above additional packages.
- 2.3 The supply of DataFlex packages as requested are for the Runtime version only. We previously provided multi-user versions, therefore, we have quoted for multi-user versions for this contract.
- 2.4 The requirements to run the system under MS-DOS version 3.2 can be met and the proposal includes supply of the DataFlex packages and WIMS applications.
- 2.5 Training in installation of DataFlex, program enhancement, and implementation of the WIMS applications has been included, together with software support from the Home Office.

### 3. OUTLINE OF PROPOSALS

#### 3.1 WIMS

3.1.1 WIMS is the Copyright of the United Kingdom Department of Health, and the proposer is licenced by the Secretary of State to supply the system to suitable organisations outside the U.K. National Health Service.

Attention is once again drawn to the requirements relating to Copyright as stated in para 1.3 of this proposal.

3.1.2 Any user may modify the system for his own purposes, and for this purpose source code is provided, the accompanying DataFlex package, supplied to the National Focal Point Institutions in Full Development format, allows modification of the WIMS source code and re-compilation.

3.1.3 The WIMS package proposed includes two interfaced modules:

THE ASSET MANAGEMENT MODULE

THE STOCK CONTROL AND PURCHASE ORDERS MODULE

#### 3.2 DATAFLEX

3.2.1 The DataFlex package, in Runtime format, is needed in order to run the WIMS application programs, the multi-user version will be supplied.

### 3.3 TRAINING

- 3.3.1 The requirement is for the sub-contractor to provide assistance during the software systems installation.

On previous discussions with members of the National Focal Points and members of UNIDO staff, we have suggested that a mission be arranged to visit each site within the project.

The objective of the visit is to provide support to these NFP's as follows:

- a. Support is required on both DataFlex and WIMS packages relating to installation.
- b. Overview of the WIMS applications to the additional and prospective users.
- c. Operational Organisation.
- d. Assistance relating to possible end user enhancements.
- e. Support relating to users own application using DataFlex.
- f. Identification and uses for which the existing WIMS installations have been utilised, the extent of implementation and problems encountered, in order to include this in the final report.

- 3.3.2 We have included for 2 working days at each of the seven national Focal Points, we suggest that we visit each site in turn.

#### 4. PROPOSALS

##### 4.1 WIMS

4.1.1 It is proposed that the existing licence issued to UNIDO (No.P1166 dated 6 February 1989) will be replaced with a new licence, also issued to UNIDO, which will allow a total of 28 installations to be made.

These installations are:

a. Each National Focal Point Institution and will have three nodes in each of the following countries:

i. Czechoslovakia

ii. Bulgaria

iii. Cyprus

iv. Hungary

v. Yugoslavia

vi. Poland

vii. Portugal

Because of limitations in the definition of multiple licences, it is important that UNIDO signs the licence again.

It is then possible for the proposer to charge £1000 for each of the additional installations.

4.1.2 Supplies of the software and documentation, in English, to the National Focal Point Institutions would then be made by UNIDO.

Each National Focal Point Institution would make supplies to three nodes within the relevant country in total.

4.1.3 The format of the WIMS licence and the responsibilities of the licensee are as contained in the licence already in the possession of UNIDO.

4.1.4 The WIMS applications will run in either single or multi-user mode under MS-DOS and all compatible networking systems, and under OS/2, without alterations to the applications software.

##### 4.2 DATAFLEX

4.2.1 The proposal includes the cost of supplying each National Focal Point Institution with two copies of DataFlex 2.3 in Multi-User Runtime package format.



### 4.3 TRAINING

A detailed Itinary programme will be submitted for approval during the briefing visit to UNIDC, when arrangements will also be finalised for sufficient equipment/Personnel to be made available by the NFP to suit the number of members.

### 4.4 BACK-STOPPING SUPPORT

4.4.1 All WIMS programs carry a warranty valid for 90 days from the date of issue, covering statement errors in the source code.

Support is included for correction of any such statement errors notified during this period.

The proposer warrants to supply corrections within 5 working days of notification of such errors, and reserves the right to issue the corrections in any way considered most suitable.

- a. By a written listing for user application and user re-compilation; either by letter, telex or facsimile.
- b. By supply of revised programs on suitable computer media for copying over by the user.

All such requests and corrections must be relayed between the proposer and a single point of contact, in this case, INORGA.

4.4.2 This warranty can be extended by supply of an Annual Software Maintenance Agreement which takes effect from the end of the 90 day inclusive warranty for one year at a premium of 10% of the total licence cost.

It is renewable thereafter on a continuous annual basis.

5.	<b>COST ANALYSIS</b>	
5.1	<b>WIMS</b>	
	Supply of licence for 14 additional installations @ £1000 each	£14000
5.2	<b>DATAFLEX</b>	
	Supply of 14 Runtime Multi-User packages.	£ 3486
5.3	<b>BRIEFING, DEBRIEFING AND TRAINING</b>	
	2 x 2 days in Vienna	inclusive
	<del>7</del> 4 days, <del>1</del> 2 days spent at each National Focal Point. Travel and accommodation has been included.	£ 5650
		-----
	Total of Cost Proposal	£23136
		-----

6. INVITEE'S ANALYSIS OF COST PROPOSAL

The Cost Proposal is submitted in the following pages, and acceptance of conditions as below would be appreciated:

6.1 CURRENCY

In view of the lack of stability between the US\$ and the UK Pound exchange rate, this proposal is submitted in Pounds Sterling.

6.2 DataFlex costs included are based on all packages being supplied as one lot, enabling the proposer to obtain reasonable discounts to the advantage of UNIDO.

6.3 Stage payments are required as follows:

On supply of the WIMS licence and software           £14000

On supply of the Dataflex packages                   £ 3486

After completion of the mission to each of  
the participating countries.                           £ 5650

6.4 In view of the briefing and de-briefing costs having been absorbed into the WIMS licence fees, the proposer trusts that the above stage payments are acceptable.

7. CONCLUSION

- 7.1 The proposer has attempted to keep the Cost Proposal as low as possible, by offering a heavily discounted WIMS licence to cover 14 installations, by negotiation of bulk purchase of the DataFlex packages.
- 7.2 The difficulties of locked code in a project as diverse as this are well appreciated, and the offer to supply source code for the purposes of User-transparent translation and user enhancement is unique amongst supplies of this type of software.
- 7.3 The proposer's programming services, if required, for enhancement are available to any of the project members, and firm quotations can be supplied for such work against detailed specifications.
- 7.4 The proposer is in the mainstream of Maintenance Engineering activities on a Worldwide basis, and can supply services for any purpose in this environment.
- 7.5 The proposer can commence the contract within 2 weeks of acceptance by UNIDO.
- 7.6 The proposer is committed to on-going development and support of the system. We have recently completed Bar Coding within Stores environment and suggest that during the de-briefing session, this is discussed and possible evaluations carried out.

(conting.)

	<u>TOTAL COST</u>
5. <u>OTHER DIRECT COSTS</u> (specify)	
.....	\$ .....
.....	\$ .....
.....	\$ .....
TOTAL OTHER DIRECT COSTS:	\$ <u>NIL</u>
6. <u>EQUIPMENT, MATERIALS AND SUPPLIES</u>	
Equipment	\$ .NIL .....
Materials and Supplies	\$ £17486.00 .....
TOTAL EQUIPMENT,	
MATERIALS AND SUPPLIES	\$ <u>£17486.00</u>
7. <u>SUBCONTRACTS</u> (specify)	
.....	\$ .....
.....	\$ .....
TOTAL SUBCONTRACTS	\$ <u>NIL</u>
8. GRAND TOTAL ITEMS 1-7 CONTRACT PRICE:	\$ <u>£23136.00</u>

PART II

A. CURRENCY REQUIREMENTS

a) Contractor's Currency	\$ .NIL .....
b) Local Currency	\$ .NIL .....
c) Other Currency	\$ .NIL .....

B. TRAVEL AND TRANSPORTATION EXPENSES (List - See Instructions, paragraph 3)

AIR FARE - FROM LONDON HEATHROW TO ALL SEVEN PARTICIPATING COUNTRIES, AND RETURN TO LONDON

INVITEE'S ANALYSIS OF COST PROPOSAL

				TOTAL COST
<u>1. PROFESSIONAL SERVICES</u>				
<u>A. Project Area</u>				
Name	Position Title	Man- Months	Cost/ Man-Month	
H. J. EVANS.....	CONTRACTS MANAGER	0.50	\$2400.00	\$ 4200.00
OP.....				\$.....
J. C. HUBBARD....	MANAGING PARTNER			\$.....
.....				\$.....
TOTAL PROJECT AREA				\$ 4200.00
<u>B. Home Office</u>				
Name	Position Title	Man- Months	Cost/ Man-Month	
J. C. HUBBARD....		0.50	INCL	\$ NIL
.....				\$.....
.....				\$.....
TOTAL HOME OFFICE				\$ NIL
<u>2. SUBSISTENCE</u>				
<u>A. Project Area</u>				
.14... man/days at \$50..... per day				\$ 700.00
<u>B. Briefing and Debriefing</u>				
.4... man/days at \$... INCL.... per day				\$ NIL
<u>C. Other (specify) SOFTWARE SUPPORT</u>				
.90. man/days at \$... INCL.... per day				\$ NIL
TOTAL SUBSISTENCE				\$ 700.00
<u>3. TRAVEL AND TRANSPORTATION (specify in PART II B)</u>				\$ 750.00
<u>4. REPORTS</u> INCL				\$ NIL

APPENDIX C  
VISIT OBJECTIVES

## PIERCE MANAGEMENT SERVICES

NP Pierce & Sons, Ltd. (UK) Ltd. MBEM, Ltd. (India) MBEM, Ltd. (Bangladesh) P. Ltd.

Mr K Zebrakovsky  
INORGA  
L. Lenska 17  
118 06 Prague 1  
Czechoslovakia

23 May 1990

Our Ref:WU150423.050

Dear Karel

DP/RER/87/036  
Project Site Mission

Following recent discussions it has been agreed, and approval given, to visit you and the project sites.

The object of the mission is to:-

1. Provide a detailed report of each participating country's N.F.P, together with chosen nodes. Objectives to be identified, have they been reached? Implementation process by the N.F.P to the nodes.
2. What is the current situation regarding support and conversion of menus into host languages?
3. Having used the system for a period of time what is required for complete implementation?
4. Report on overall implementation, benefits identified, savings of any type, benefits or otherwise to personnel.

Has production effectiveness been achieved?, and other related items.

As you are aware, the meeting of the National Focal Point representatives has been arranged for the 3rd and 4th July 1990, which I will be attending.



Mr K Zebrakovsky

23 May 1990

It is my intention to visit you on Tuesday 10 July in order to discuss the above items and to visit the Nodes.

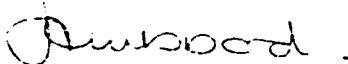
I therefore ask if you could arrange on my behalf accommodation for the night of Tuesday 10 July 1990, and also to arrange the visit etc.

It is anticipated that I shall arrive at 14.40 on flight number JU152 at Prague on Tuesday 10 July, and I shall depart at 15.05 from Prague on flight number BA857 on Wednesday 11 July 1990.

I trust that the above is agreeable, and I look forward to receiving your further communication in due course. Also please find enclosed copies of letters sent to the relevant parties in Bulgaria, Poland and Yugoslavia for your information.

Kind regards

Yours sincerely



T C Hubbard  
Pierce Management Services

Enc: Timetable  
c.c J Krouzek Esq. - UNIDO

APPENDIX D  
SIGNED WIMS LICENCE AGREEMENTS

**AGREEMENT**  
**for the Use of Computerized Works Information and Management**  
**System**  
**(WIMS)**

INORGA, Institute for Industrial Management Automation, Prague 1, Letenská 17, as National Network Leading Institution of the UNDP/UNII project 1276K/87000 "Industrial Computerized Management System" provides to the Network Focal Point Institution state full address: .....

one DataFlex version of the WIMS Asset Management and Stock Control modules, comprising compiled and source code with DataFlex 2.3 multi-user and runtime packages, based on the UNII contract No. 88/188 with Pierce Management Services.

**The Network Focal Point Institution**

shall be responsible for the safety, care and protection of the WIMS Package or any parts thereof in compliance with the WIMS Licence Agreement Number P1128 (see Annex 1) issued to United Nations Industrial Development Organization dated 6 February 1989;

shall effort and maintain adequate security measures to safeguard the WIMS Package from theft, unauthorized copying or access by any person other than his servants or employees;

shall take all reasonable precautions to maintain the confidentiality and integrity of the WIMS Package and shall not disclose or permit disclosure of the WIMS Package without the prior consent of the Contractor;

shall instruct all staff having access to the WIMS Package to comply with the above requirements;

shall comply in all respects with the WIMS Licence Agreement Number P1128 dated 6 February 1989 (see Annex 1).

In the event that the WIMS Package or any part or parts of it should come into the hands of a third party through the Network Focal Point Institution and/or Network Node Point or any employee, or former employee, contrary to the terms of this Agreement, the National Focal Point Institution shall compensate the Contractor for any claims.

Signed by ..... Date 27.11.89  
(for National Focal Point Institution)  
..... Date 27.11.89  
(for Network Node Point - state full address)  
..... Date 29.3.89  
(for INORGA Institute)

**AGREEMENT**  
**For the Use of Computerized Works Information and Management**  
**System**  
**(WIMS)**

INORGA, Institute for Industrial Management Automation, Prague 1,  
Letenska 17. 5. Republic of Czechoslovakia. Institution of the  
Czechoslovak Academy of Sciences. Institute of Computerized  
Management Systems, Institute of the National Social Point  
Institution, Institute of the National Social Point  
Institution, Institute of the National Social Point  
**IEFCH, Institute for Economics**  
**of Chemical Industries, Warsaw, Rydygiera 8**

The following version of the WIMS Work Management and Stock  
Control package, comprising compiled and source code with  
hardware and software packages, based on the UNIVAC  
computer No. 5812 with Work Management Services.

**The Network Node Point Institution**

shall be responsible for the safety, care and protection of  
the WIMS package or any parts thereof in compliance with the  
FINANCIAL AGREEMENT (Contract File No. Annex 1), issued to  
the National Social Point Institution, Organization dated 1  
September 1989.

shall be responsible for the safety, care and protection of  
the WIMS package or any parts thereof in compliance with the  
FINANCIAL AGREEMENT (Contract File No. Annex 1), issued to  
the National Social Point Institution, Organization dated 1  
September 1989.

shall be responsible for the safety, care and protection of  
the WIMS package or any parts thereof in compliance with the  
FINANCIAL AGREEMENT (Contract File No. Annex 1), issued to  
the National Social Point Institution, Organization dated 1  
September 1989.

shall be responsible for the safety, care and protection of  
the WIMS package or any parts thereof in compliance with the  
FINANCIAL AGREEMENT (Contract File No. Annex 1), issued to  
the National Social Point Institution, Organization dated 1  
September 1989.

shall comply in all respects with the WIMS License  
Agreement Number 1189 dated 8 February 1989 (see Annex 1).

In the event that the WIMS package or any part or parts of it  
should come into the hands of a third party through the Network  
Node Point Institution and/or Network Node Point or any  
employees, or former employees, contrary to the terms of this  
Agreement, the National Social Point Institution shall compensate  
the Contractor for any claims.

Signed By *[Signature]* Date *1989 03 01*  
(For National Social Point Institution)

..... Date .....

*02* ..... Date *6.3.1989*  
(For Network Node Point - state full address)

**AGREEMENT**  
**for the Use of Computerized Works Information and Management**  
**System**  
**(WIMS)**

INORGA, Institute for Industrial Management Automation, Prague 1,  
Letenska 17, as National Network Node Institution of the  
ENR/ENR project, Contract No. Industrial Computerized  
Management System provided by the Network Node Point  
Institution, state full address: CONETNA-COMPANHIA METALURGICA NACIONAL, SA  
RUA ACADEMIA DAS CIENCIAS, 511  
1200 LISBOA

one licensed version of the WIMS Asset Management and Stock  
Control modules, comprising compiled and source code with  
Detailed and runtime packages, based on the WIMS  
control developed with Micro Management Services.

**The National Local Point Institution**

shall be responsible for the safety, care and protection of  
the WIMS Package or any parts thereof in compliance with the  
ENR/ENR Agreement Number 8188 (see Annex 1) signed  
between the ENR/ENR project development Dept. and the  
Contractor.

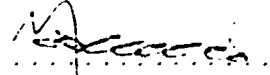
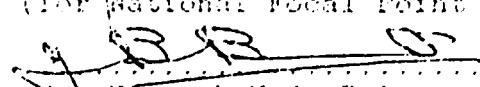
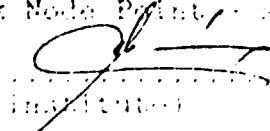
shall not be allowed to reproduce, modify, transfer,  
sell or lease the WIMS Package for third parties, or  
to disclose any portion thereof, other than the Contractor,  
to any other party.

shall take all reasonable precautions to maintain the  
confidentiality and integrity of the WIMS Package and  
shall not permit disclosure of any WIMS data  
without the prior consent of the Contractor.

shall ensure all staff having access to the WIMS Package  
to comply with the above requirements.

shall comply in all respects with the WIMS License  
Agreement Number 8188 dated 8 February 1989 (see annex 1).

In the event that the WIMS Package or any part or parts of it  
should come into the hands of a third party through the National  
Local Point Institution and/or Network Node Point by any  
employees, or former employees, contrary to the terms of this  
Agreement, the National Local Point Institution shall compensate  
the Contractor for any claims.

Signed by  ..... Date .....  
(for National Local Point Institution)  
 ..... Date 89.03.02  
(for Network Node Point, state full address)  
 ..... Date 29/3/89  
(for INORGA Institute)

AGREEMENT

for the Use of Computerized Works Information and Management System (WIMS)

INORGA. Institute for Industrial Management Automation, Prague 1, Letenska 17, as National Network Node Institution of the EMI/EMIS project 'Svobodny' 'Free' 'Work' 'Information' 'Management' 'System' provides the following information for the installation (state full address): CYPRUS Productivity Centre, P.O.Box 586, Nicosia, Cyprus.

The software version of the WIMS Work Management and Control modules comprising compiled and linked code for the installation of a multi-user and runtime package, based on the contract No. 84-188 with Pierce Management Services.

The Network Focal Point Institution

shall be responsible for the safe-keeping and protection of the WIMS Package or any parts thereof in compliance with the WIMS Licence Agreement Number P1188 Annex 14, dated 6 February 1989, United Nations Industrial Development Organisation, Vienna, February 1989.

shall effect and maintain adequate arrangements to ensure and safeguard the WIMS Package from theft, loss, damage, destruction or misuse by any person other than the authorized personnel of the project.

shall ensure all reasonable provisions to maintain the confidentiality and integrity of the WIMS Package and shall not disclose or permit disclosure of the WIMS Package without the prior consent of the Contractor.

shall instruct all staff having access to the WIMS Package to comply with the above requirements.

shall comply in all respects with the WIMS Licence Agreement Number P1188 dated 6 February 1989 (see Annex 14).

In the event that the WIMS Package or any part or parts thereof should come into the hands of a third party through the National Focal Point Institution and/or Network Node Point, or any employees, or former employees, contrary to the terms of this Agreement, the National Focal Point Institution shall compensate the Contractor for any claims.

Signed by Constantin D. Date 21/02/1989 (for National Focal Point Institution)

Constantin D. (as above) Date 22/02/1989 (for Network Node Point - state full address)

INORGA Date 23/89 (for INORGA Institution)

ANNEXMENT TO THE AGREEMENT  
for the Use of Computerized Works Information and Management  
System  
(WIMS)

INORGA, Institute for Industrial Management Automation, Prague 1,  
Jefenska 17, as Regional Network Leading Institution of the  
UNEP/UNESCO project UN/EP/036 "Industrial Computerized  
Management System" proposed by the Network Focal Point Institution  
(state full address of the Focal Point Institution, UN/EP/036,  
.....  
.....  
.....

two DataFlex version 2.10 multi-user run-time versions of the WIMS,  
Asset Management and Stock Control modules, based on the UN/EP  
contract No. 89/136 with Finance Management Services.

The Network Focal Point Institution

shall be responsible for the safety, care and protection of  
the WIMS Package or any parts thereof in compliance with the  
WIMS Licence Agreement Number P0989 (see Annex 1), issued to  
United Nations Industrial Development Organization dated 6  
November 1987;

shall effect and maintain adequate security measures to  
safeguard the WIMS Package from theft, unauthorised copying  
or removal by any person other than his servants or employees;

shall take all reasonable precautions to maintain the  
confidentiality and integrity of the WIMS Package and shall  
not disclose or permit disclosure of the WIMS Package without  
the prior consent of the Contractor;

shall instruct all staff having access to the WIMS Package to  
comply with the above requirements;

shall comply in all respects with the WIMS Licence Agreement  
Number P0989 dated 6 November 1987 (see Annex 1).

shall advise name and full address of the Network Node Point  
where the WIMS will be installed to the INORGA immediately.

In the event that the WIMS Package or any part or parts of it  
should come into the hands of a third party through the Network  
Focal Point Institution and/or Network Node Point or any employees,  
or former employees, contrary to the terms of this Agreement, the  
National Focal Point Institution shall compensate the Contractor  
for any claims.

Signed by ..... *B. J. Patek* .....  
(for National Focal Point Institution)

Date ..... 19.12.87

..... *[Signature]* .....  
(for INORGA Institute)

Date ..... 19.12.87

**AGREEMENT**  
**for the Use of Computerized Works Information and Management**  
**System**  
**(WIMS)**

INORMA, Institute for Industrial Management Automation, Prague 1,  
Letenska 17  
The National Research Institute for the Application of the  
WIMS System (Network Node Point) is a part of the National  
Research Institute for the Application of the WIMS System  
(Network Node Point) in the field of industrial management  
automation.

The National Research Institute for the Application of the WIMS System (Network Node Point) is a part of the National Research Institute for the Application of the WIMS System (Network Node Point) in the field of industrial management automation.

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The National Research Institute for the Application of the WIMS System (Network Node Point) is a part of the National Research Institute for the Application of the WIMS System (Network Node Point) in the field of industrial management automation.

In the event that the WIMS package or any part or part of it should come into the hands of a third party through the Network Node Point Institution and/or other Node Point or any employee or former employee, contrary to the terms of this Agreement, the National Research Institute for the Application of the WIMS System (Network Node Point) shall compensate the Contractor for any claim.

Signed by Ing. Rojan NOJMA, director 19.5.1986  
for National Research Institute for the Application of the WIMS System (Network Node Point)

..... Date .....  
for Network Node Point (name and address)  
Člavoj Chládek  
Chief Advisor 19.5.1986  
for WIMS Institution



AMENDMENT TO THE AGREEMENT  
for the Use of Computerized Works Information and Management  
System  
(WIMS)

INORGA, Institute for Industrial Management Automation, Prague 1,  
Letenska 17, a Regional Network Leading Institution of the  
UNEP-UNIDO project DP/GER/87/036 "Industrial Computerized  
Management System" provides to the Network Focal Point Institution  
(state full address: COMETIA - COMPLEXA METALURGICA NACIONAL SA,  
RUA ACHILLES GAS SIENCIAS, 5  
1200 LISBOA, PORTUGAL

two DataFlex version 2.3b multi-user run-time versions of the WIMS,  
Asset Management and Stock Control modules, based on the UNIDO  
contract No. 88/176 with Pierce Management Services.

The Network Focal Point Institution

shall be responsible for the safety, care and protection of  
the WIMS Package or any parts thereof in compliance with the  
WIMS Licence Agreement Number P0989 (see Annex 1), issued to  
United Nations Industrial Development Organization dated 6  
November 1989;

shall effect and maintain adequate security measures to  
safeguard the WIMS Package from theft, unauthorised copying  
or access by any person other than his servants or employees;

shall take all reasonable precautions to maintain the  
confidentiality and integrity of the WIMS Package and shall  
not disclose or permit disclosure of the WIMS Package without  
the prior consent of the Contractor;

shall instruct all staff having access to the WIMS Package to  
comply with the above requirements;

shall comply in all respects with the WIMS Licence Agreement  
Number P0989 dated 6 November 1989 (see Annex 1).

shall advise name and full address of the Network Node Point  
where the WIMS will be installed to the INORGA immediately.

In the event that the WIMS Package or any part or parts of it  
should come into the hands of a third party through the Network  
Focal Point Institution and/or Network Node Point or any employees,  
or former employees, contrary to the terms of this Agreement, the  
National Focal Point Institution shall compensate the Contractor  
for any claims.

Signed by ..... Date .....

(for National Focal Point Institution)

.....  
(for INORGA Institute)

Date 19.12.89

AMENDMENT TO THE AGREEMENT  
for the Use of Computerized Works Information and Management  
System  
(WIMS)

INORGA, Institute for Industrial Management Automation, Prague 1,  
Letenska 17, as Regional Network Leading Institution of the  
WIMS WISA project DW/89/187/885 "Industrial Computerized  
Management System" provides to the Network Focal Point Institution  
the full address: IEPCH, Institute for Engineering of Chemical  
Industries, Warsaw, Bydgoska 5, Poland

two Dataflex version 2.3h multi-user run-time versions of the WIMS,  
Asset Management and Stock Control modules, based on the UNIDO  
contract No. 83/135 with Pierce Management Services.

The Network Focal Point Institution

shall be responsible for the safety, care and protection of  
the WIMS Package or any parts thereof in compliance with the  
WIMS Licence Agreement Number P0989 (see Annex 1), issued to  
United Nations Industrial Development Organization dated 6  
November 1989;

shall effect and maintain adequate security measures to  
safeguard the WIMS Package from theft, unauthorized cloning  
or access by any person other than his servants or employees;

shall take all reasonable precautions to maintain the  
confidentiality and integrity of the WIMS Package and shall  
not disclose or permit disclosure of the WIMS Package without  
the prior consent of the Contractor;

shall instruct all staff having access to the WIMS Package to  
comply with the above requirements;

shall comply in all respects with the WIMS Licence Agreement  
Number P0989 dated 6 November 1989 (see Annex 1).

shall advise name and full address of the Network Node Point  
where the WIMS will be installed to the INORGA immediately.

In the event that the WIMS Package or any part or parts of it  
should come into the hands of a third party through the Network  
Focal Point Institution and/or Network Node Point or any employees,  
or former employees, contrary to the terms of this Agreement, the  
National Focal Point Institution shall compensate the Contractor  
for any claims.

Signed by .....  
(for National Focal Point Institution)

Date .....

.....  
(for INORGA Institute)

Date 19.12.89



APPENDIX E  
CONTRACT AND TERMS OF REFERENCE DOCUMENTS

CONTRACT No. 89/136

between the

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO)

located at

Vienna International Centre, P.O. Box 300, A-1400 Vienna, Austria

Telephone : 211310, Telex : 131218 pac a, Fax : 230-8272

and

Pierce Management Services

located at

Dickinson House, 30, Albion Street, Chipping Norton, UK OX7 5BJ

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Project No.: DP/RER/87/036

Purchase Order No. 15-9-00136

281

1. Contractor's Responsibilities

In accordance with the terms and conditions stated herein and in the Annexes hereto, the Contractor shall provide for the full and proper performance of his obligations under this Contract, all the equipment and services as described in the Terms of Reference dated July 1989 and in his proposal dated 27 July 1989 as amended by his letter of 7 August 1989. A copy of the Terms of Reference is attached hereto as Annex B and made a part hereof. All work required under this Contract shall be completed no later than three (3) months after signature of the Contract by both Parties.

2. Contract Price and Payment

UNIDO shall pay the Contractor for the full and proper performance of all his obligations hereunder the sum of Pounds Sterling twenty-three thousand one hundred and thirty-six (£ 23,136). This sum shall cover all expenses incurred by the Contractor including, but not limited to, salaries, indemnities, social charges, overheads, technical assistance and supervision costs. The Contractor shall not do any work which may result in any charges to UNIDO over and above the sum of Pounds Sterling twenty-three thousand one hundred and thirty-six (£ 23,136) without prior written consent of UNIDO and a formal amendment to this Contract.

3. Entry into Effect of the Contract

This Contract shall be deemed to be effective from the date of signature of the Contract by both Parties.

4. Report

The Contractor shall submit to UNIDO, Vienna, a Final Report, in English, in three (3) copies, upon completion of the work.

5. Progress Payments

Progress payments on account of the Contract price set forth in paragraph 2 shall be made against the Contractor's invoices rendered as follows:

AS

a) on supply of the WIMS licence and software, the sum of .....	£ 14,000
b) on supply of the Dataflex packages, the sum of .....	£ 3,480
c) after completion of the mission to each of the participating countries, and upon UNIDO's acceptance of the Contractor's Final Report, the sum of.....	£ 5,650
Grand Total	£ 23,136

The making of any payment hereunder by UNIDO shall not be construed as an unconditional acceptance by UNIDO of the work accomplished by the Contractor up to the time of such payment.

6. Submission of Invoices

The Contractor shall submit his invoices in one (1) original and four (4) copies to Mr. S. Morozov, Chief, Contracts Section, UNIDO, P.O. Box 300, A-1400 Vienna, Austria.

7. General Conditions

The Parties hereto agree to be bound by the UNIDO General Conditions of Contract a copy of which is attached hereto as Annex A.

8. Special Condition

In accordance with the resolutions adopted by the United Nations General Assembly on South Africa, it is a condition of this Contract that the Contractor shall not collaborate with South Africa. In particular, the Contractor shall not, in the execution of this Contract, utilize South African services, shall not purchase and supply any equipment of South African origin or manufacture and shall not use South African Airways or South African shipping lines for any official staff travel or shipment of equipment. The Contractor shall incorporate this condition in all

*Handwritten initials*

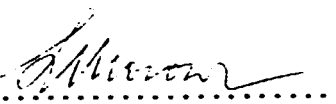
sub-contracts for the provision of services and/or supply of equipment in connexion with this Contract.

IN WITNESS WHEREOF, the Parties hereto have executed this Contract.

PIERCE MANAGEMENT SERVICES

UNITED NATIONS INDUSTRIAL  
DEVELOPMENT ORGANIZATION

By ..... 

By ..... 

(T. C. HUBBARD)

S. Morozov, Chief  
Contracts Section  
General Services Division  
Department of Administration  
P.O. Box 300  
A-1400 Vienna  
Austria

Dickinson House  
30 Albion Street  
Chipping Norton OX7 5BJ  
UK

Date .31<sup>st</sup> OCT. 1989.

Date 24 Oct 1989

Enclosures

- Annex A : General Conditions of Contract
- Annex B : Terms of Reference dated July 1989

41



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

GENERAL CONDITIONS OF CONTRACT

ANNEX A

1. Confidential Nature of Documents

All maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Contractor under this Contract shall be the property of UNIDO, shall be treated as confidential and shall be delivered only to UNIDO's authorized officials on completion of the work under this Contract; their contents shall not be made known by the Contractor, without the written consent of UNIDO, to any person other than the personnel of the Contractor performing services under this Contract.

2. Independent Contractor

The Contractor shall have the legal status of an independent contractor. Any person assigned by the Contractor to perform services under this Contract shall remain in the employment of the Contractor. Unless otherwise provided for in this Contract, UNIDO shall not be liable for claims of any kind in connexion with the performance of such services. The Contractor and his employees shall conform to all applicable laws, regulations and ordinances promulgated by legally constituted authorities of the Government.

3. Contractor's Responsibility for Employees

The Contractor shall be responsible for the professional and technical competence of his employees and shall select, for work under this Contract, reliable individuals who will perform effectively in the implementation of the Contract, comply with the laws of the Government, respect the local customs and conform to a high standard of moral and ethical conduct.

4. Assignment of Personnel

The Contractor shall not assign any personnel other than those referred to in this Contract for the performance of work in the field without the prior written approval of UNIDO. Prior to assigning any other personnel for the performance of work in the field, the Contractor shall submit to UNIDO, for its consideration, the curriculum vitae of any person the Contractor proposes to assign for such service.

5. Removal of Personnel

Upon written request by UNIDO, the Contractor shall withdraw from the field any personnel provided under this Contract and shall replace such personnel by others acceptable to UNIDO, if the UNIDO so requests. All costs and additional expenses resulting from the replacement, for whatever reason, of any of the Contractor's personnel shall be for the account of the Contractor. Such withdrawal shall not be considered as termination in part or in toto of this Contract under the provisions of paragraph 12 "Termination" hereafter.

6. Assignment

The Contractor shall not assign, transfer, pledge or make other disposition of this Contract or any part thereof or of any of the Contractor's rights, claims or obligations under this Contract except with the prior written consent of UNIDO.

7. Sub-Contracting

In the event the Contractor requires the services of sub-contractors, the Contractor shall obtain the prior written approval and clearance of UNIDO for all sub-contractors. UNIDO's approval of a sub-contractor shall not relieve the Contractor of any of his obligations under this Contract, and the terms of any sub-contract shall be subject to and in conformity with the provisions of this Contract.

8. UNIDO Privileges and Immunities

Nothing in or relating to this Contract shall be deemed a waiver of any of the privileges and immunities of UNIDO.

9. Non-employment of UNIDO Staff Members

The Contractor shall not, while this Contract is in effect, employ or consider the employment of UNIDO staff members without the prior written approval of UNIDO.

10. Language, Weights and Measures

Unless otherwise specified in the Contract, the English language shall be used by the Contractor in all written communications to UNIDO with respect to the services to be rendered and all documents procured or prepared by the Contractor pertaining to the work. The metric system of weights and measures shall be used by the Contractor and estimates of quantities involved shall be made and recorded in metric units, except when otherwise specified in the Contract.

11. Force Majeure

Force Majeure as used herein shall mean acts of God, laws or regulations, industrial disturbances, acts of the public enemy, civil disturbances, explosions and any other similar event of equivalent force not caused by nor within the control of either party and which neither party is able to overcome. As soon as possible after the occurrence of any event constituting Force Majeure, and if the Contractor is thereby rendered unable, wholly or in part, to perform his obligations and meet his responsibilities under this Contract, the Contractor shall give notice and full particulars thereof in writing to UNIDO. In this event, the following provisions shall apply:

- (a) The obligations and responsibilities of the Contractor under this Contract shall be suspended to the extent of his inability to perform them and for as long as such inability continues. During such suspension and in respect of work suspended, the Contractor shall be entitled only to reimbursement by UNIDO, against appropriate vouchers, of the essential costs of

- 2 -

maintenance of any of the Contractor's equipment and of per diem of the Contractor's personnel rendered idle by such suspension.

- (b) The Contractor shall, within fifteen (15) days of the occurrence of the Force Majeure, submit a statement to UNIDO of estimated expenditures for the duration of the period of suspension.
- (c) The term of this Contract shall be extended for a period equal to the period of suspension taking, however, into account any special conditions which may cause the time for completion of the work to be different from the period of suspension.
- (d) If the Contractor is rendered permanently unable, wholly or in part, by reason of Force Majeure, to perform his obligations and meet his responsibilities under this Contract, UNIDO shall have the right to terminate this Contract on the same terms and conditions as are provided for in paragraph 12, "Termination", except that the period of notice may be seven (7) days instead of thirty (30) days.
- (e) For the purpose of the preceding sub-paragraph (d), UNIDO may consider the Contractor permanently unable to perform in case of any period of suspension in excess of ninety (90) days. Any such period of ninety (90) days or less shall be deemed temporary inability to perform.

12. Termination

UNIDO may terminate this Contract in whole or in part and at any time, upon thirty (30) days' notice of termination to the Contractor. In the event such termination is not caused by the Contractor's negligence or fault, UNIDO shall be liable to the Contractor for payment in respect of work already accomplished, for the cost of repatriation of the Contractor's personnel, for necessary terminal expenses of the Contractor, and for the cost of such urgent work as is essential and as the Contractor is asked by UNIDO to complete. The Contractor shall keep expenses at a minimum and shall not undertake any forward commitment from the date of receipt of UNIDO's notice of termination.

13. Bankruptcy

Should the Contractor be adjudged bankrupt, or should the Contractor make a general assignment for the benefit of his creditors, or should a receiver be appointed on account of the Contractor's insolvency, UNIDO may, without prejudice to any other right or remedy it may have under the terms of this Contract, terminate this Contract forthwith by giving the Contractor written notice of such termination.

14. Workmen's Compensation and other Insurance

- (a) The Contractor shall provide and thereafter maintain appropriate workmen's compensation and liability insurance, with respect to and prior to the departure for overseas employment under this Contract of all employees who are hired outside the country of the Government and who are not citizens of said country.

- - -
- (b) The Contractor shall provide and thereafter maintain insurance in an appropriate amount against public liability for death, bodily injury or damage to property arising from the operation in the country in which the Contract work is to be performed of motor vehicles, boats or airplanes owned or leased by the Contractor. The Contractor warrants that similar insurance shall be provided and maintained in respect of all vehicles, boats or airplanes owned or leased by foreign personnel of the Contractor and used by them in the country in which the Contract work is to be performed.
  - (c) The Contractor shall comply with the labour laws of the Government providing for benefits covering injury or death in the course of employment.
  - (d) The Contractor undertakes that provisions to the same effect as the provisions of this paragraph will be inserted in all sub-contracts or sub-ordinate contracts made in performance of this Contract, except sub-contracts or sub-ordinate contracts exclusively for furnishing materials or supplies.

15. Indemnification

The Contractor shall indemnify, hold and save harmless and defend at his own expense UNIDO, its officers, agents, servants and employees from and against all suits, claims, demands and liability of any nature or kind, including costs and expenses arising out of acts or omissions of the Contractor or his employees or sub-contractors in the performance of this Contract. This requirement shall extend to claims or liabilities in the nature of workmen's compensation and to claims or liabilities arising out of the use of patented inventions or devices.

16. Arbitration

Any dispute arising out of the interpretation or application of the terms of this Contract or any breach thereof shall, unless it is settled by direct negotiation, be settled in accordance with the arbitration rules established by the United Nations Commission on International Trade Law (UNCITRAL) as at present in force. The parties shall be bound by any arbitration award rendered as a result of such arbitration as the final adjudication of any such dispute. It is understood, however, that the provisions of this paragraph shall not constitute nor imply the waiver by UNIDO of its privileges and immunities.

17. Conflict of Interest

No employee of the Contractor assigned to perform work under this Contract shall engage, directly or indirectly, either in his own name or through the agency of another person, in any business, profession or occupation in the country of the Government; nor shall he make loans to or investments in any business, profession, or occupation in the said country.

18. Obligations

In connexion with the performance of his services under this contract, the Contractor shall neither seek nor accept instructions from any authority external to UNIDO. The Contractor shall refrain from any action which may adversely affect UNIDO and shall fulfil his commitments with full regard for the interests of UNIDO. Unless authorized in writing by UNIDO, the

Contractor shall not advertise or otherwise make public the fact that he is performing or has performed services for UNIDO. Also, the Contractor shall not, in any manner whatsoever, use the name, emblem or official seal of the United Nations or of the UNIDO or any abbreviation of the name of the United Nations or of the United Nations Industrial Development Organization in connexion with his business or otherwise. The Contractor is required to exercise utmost discretion in all matters relating to this Contract. Unless required in connexion with the performance of his work under this Contract or where specifically authorized by UNIDO, the Contractor shall not communicate at any time to any person, government or authority external to UNIDO any information which has not been made public and which is known to him by reason of his association with UNIDO. The Contractor shall not, at any time, use such information to private advantage. These obligations do not lapse upon satisfactory completion of the work under this Contract or termination of this Contract by UNIDO.

19. Title Rights

- (a) The United Nations or UNIDO, as the case may be, shall be entitled to all property rights including but not limited to patents, copyrights and trademarks, with regard to material which bears a direct relation to, or results from the services provided to the United Nations or UNIDO by the Contractor under this Contract. At the request of UNIDO, the Contractor shall take all necessary steps, prepare and process all necessary documents and assist in securing such property rights and transferring them to the United Nations and UNIDO in compliance with the requirements of the applicable law.
- (b) Title to any equipment and supplies which may be furnished by UNIDO shall rest with the United Nations or UNIDO as the case may be and any such equipment and supplies shall be returned to UNIDO at the conclusion of this Contract or when no longer needed by the Contractor. Such equipment and supplies, when returned to UNIDO, shall be in the same condition as when delivered by UNIDO to the Contractor, subject to normal wear and tear.

20. Facilities, Privileges and Immunities of Contractor and Contractor's Personnel

UNIDO agrees to use its best efforts to obtain for the Contractor and his personnel (except Government nationals employed locally), to the extent granted by the Government to UNIDO staff members, such facilities, privileges and immunities as the Government has agreed to grant to contractors and to their personnel performing services for the United Nations Development Programme within the country. Such facilities, privileges and immunities shall include exemption from or reimbursement of the cost of any taxes, duties, fees or levies which may be imposed in the country on salaries or wages earned by the Contractor's foreign personnel in connexion with the execution of the work under this Contract and on any equipment, materials and supplies which the Contractor may bring into the country in connection with the work under this Contract or which, after having been brought into the country, may be subsequently withdrawn therefrom. A copy of the relevant provisions concerning facilities, privileges and immunities which UNIDO shall seek to obtain, is attached to and made a part of this Contract (Annex B).

21. Waiver of Facilities, Privileges and Immunities

Any provision, whether in an Agreement, Plan of Operation or any other instrument, to which the recipient Government is a party and, by which the recipient Government confers benefits upon the Contractor and his personnel in the form of facilities, privileges, immunities, or exemptions by reason of his performance of services for UNIDO under this Contract may be waived by the UNIDO where, in its opinion, the facility, privilege or immunity would impede the course of justice and can be waived without prejudice to the successful completion of the work under this Contract or to the interest of the United Nations Development Programme or UNIDO.

UNIDO, DA/PAC  
VIENNA

November 1986

TERMS OF REFERENCE

for a Basic Maintenance Management System to be Subcontracted through UNIDO  
for Project DP/RER/87/036 "Industrial Computerized Management Systems"

1. Objective of Subcontract

The increase of the industrial production capacities utilization through innovative management maintenance practice.

2. Background and Justification

The European regional project DP/RER/87/036 "Industrial Computerized Management Systems" has been executed since 1987.

The project participating countries are Bulgaria, Cyprus, Czechoslovakia, Hungary, Poland, Portugal and Yugoslavia.

The aim of the project is development and application of computerized systems and other advance techniques in maintenance environment of basic industries of the participating countries.

In each of the participating countries a National Focal Point Institution (NFPI) has been identified as a responsible body for the project implementation at the national level e.g. for development, customization and local application of the general software package on Computerized Maintenance Management System (CMS)

The CMS, called WIMS (Work Information Management System), has been selected as a basic package for further development and customization. WIMS has been provided through UNIDO subcontract N 88/136 with Messrs. Pierce Management Services (UK) to all project countries.

Within the framework of the original subcontract each NFPI has received two licenses for WIMS installation, namely: one fully pledged software system with complete source code and documentation, enabling NFPI to do further system development and customization and one runtime version of WIMS for pilot application at one industrial node.

However, it has become obvious that additional licenses for WIMS installation would be needed to achieve wider multiplying effect in the industries of the participating countries through CMS application. For that reason the participating countries at the meeting held in Paris in April 1989 recommended to increase the number of pilot application nodes up to three per country.

3. Output of Subcontracting

The subcontractor is expected to provide to each NFPI, in accordance with the attached list, two runtime packages of WIMS including runtime versions of Data Flex (14 pieces in total) for installation at additional industrial nodes.

It is also expected that the subcontractor will provide assistance during the software systems installation and follow-up advisory services as well as it will provide (if necessary) replacement of old versions of WIMS for all participating countries during the period of the project duration (up to 1991).

4. Briefing and Debriefing

Not required.

5. Reporting

The subcontractor will report to UNIDO after submission of the required packages to the field.



Industrial Management Systems

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and contact persons.

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