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FEASIBILITY STUDY
ON A GREEK VERSION OF
THE "C E L E X" DATABASE
(ADOPTED BY THE SERVICES OF THE COMMISSION)

JANUARY 1987

COMMISSION OF THE EUROPEAN COMMUNITIES
DG IX : PERSONNEL & ADMINISTRATION
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INTEGRATED INFORMATION SYSTEMS
DATA BASE SECTION

DOCUMENT: FEASIBILITY STUDY ON A GREEK VERSION
OF THE "CELEX" DATABASE

ADOPTED BY THE SERVICES OF THE COMMISSION ON 28 JANUARY 1987

CONTEXT

PROJECT: GREEK "C E L E X"
TYPE OF PROJECT: MINOR
PROJECT OWNER: THE COUNCIL WORKING PARTY ON LEGAL DATA
PROCESSING, REPRESENTED BY THE COMMISSION'S
REPRESENTATIVE (MR. H. BERNSTEIN).
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0. INTRODUCTION

1. The Commission (Legal Service) created the CELEX database in order to cover the need for an automated documentation system in the field of Community law. CELEX became operational on 1.1.1971.

In the resolution of 26 November 1974 concerning the automation of legal documentation, the Council of the European Community considered it necessary :

- that the Community Institutions jointly introduce an inter-institutional system of computerized documentation on Community law on a gradual basis, within the limits of the budgeting credits which shall be made available for this purpose;

and recommended:

- that this documentation be kept at the disposal of Member States, under arrangements to be defined.

With the same resolution (see Annex 1) the Council created the Working Party on Legal Data Processing, a group of experts in which participate representatives of the Member States and of the Community Institutions. One of the objectives of this Working Party has been to study the development of the CELEX system. The Commission has been acting as the "executive arm" for that development, in coordination with the Working Party, which reports annually to the Committee of Permanent Representatives of the Member States (COREPER).

2. Celex covers Community law in ten well defined sectors (two of these sectors are still to be created). It provides precise information on the "status" of Community legislation in force at any given time. For its management a full-text data base management system (DBMS) is used (the MISTRAL software package)(see Annex 2).

3. Two of the main features of CELEX are:

- the obligation to provide for multilingual access to the files of the system and

- the obligation to disseminate this automated documentation system to the Member States.

4. The first obligation stems from Council Regulation No 1 of 15 April 1958 (OJ no 17, 6.10.1958, p.385/58) as amended by successive Acts of Accession of new Member States (see Annex 3). It was formulated by the Working Party as the principle of equal access to public legal data with the objective of attaining :

- "pour le droit communautaire au sens strict, l'égal traitement des versions linguistiques".

(see doc. r/1982/77(jur 102) 11.8.1977 adopted by doc.r/70/78(fin 21) 16.1.1978).

In order to fulfil this obligation for "multilingualism" the Commission has created various language versions of the system. CELEX already exists in french, english, german, dutch and italian. The danish version is in preparation (Dec 1986).

5. To fulfil its second obligation concerning the dissemination of CELEX, the Commission has followed different strategies over the years. Originally CELEX was disseminated by EURIS, a host created for that purpose by HONEYWELL - BULL Belgium. Since 1 January 1986, following a decision of the Commission's Data Base Committee (see doc. cdbc - 85 - 20/5.11.1985), CELEX has been disseminated under the responsibility of the Commission. A specialized Distribution Team has been created to provide that service, assisted by the members of the CELEX DBA team and in coordination with the Office of Official Publications in Luxembourg.

6. The creation of the Greek version of CELEX was originally mentioned in the context of the 1983 - 1985 three-year CELEX development plan. This plan which was extended to 1986 because of the "conversion project" provided for a feasibility study on the creation of the Greek version of CELEX. This feasibility study was published in June 1985 (doc. IX/2213/85-fr) and is annexed to this document (Annex 4). It is hoped that a third study will not be necessary.

I. PROBLEM STATEMENT - OBJECTIVES

1. Because CELEX is a data base open to the public any "in-house" or "bricolage" type solution (like for exemple the greek EURODICAUTOM which operates only with special synchronous SIEMENS terminals having a more or less "peculiar" greek keyboard) should be rejected. At the same time the creation of the Greek version of CELEX should proceed in coordination with other similar developments, such as for example the development of the greek component of the SYSLING project. In fact, the introduction of Greek into all the three layers of the Commission's Informatics Architecture 1985 - 1990 should be coordinated (see Guide Informatique, doc. 016/3, 1.5.1985 and doc. Guidelines for an Informatics Architecture 1986-1991, IX.E/6 (86) S10-1043-12, Nov. 1986); these layers are , personal workstations, Local Support Units (LSU) and Common Support Units. At the same time some kind of coordination should be established with similar developments in the framework of the introduction of information technology into the Greek public administration.

2. The demand for an open communicating system implies the need for standardization rather than the "preselection" of one type of terminal as was proposed in the previous feasibility study. Greek standards do now exist and international standardization bodies (ISO, ECMA) are working actively towards their incorporation into existing families of international standards.

3. Existence of standards for the coding of the Greek alphabet and for communication does not mean that the problem is solved. These standards should be implemented in:

- terminals or personal workstations used to create, "feed" and interrogate the base
- the DBMS software used for the creation, management and interrogation of the base
- the programs (THELEM and others) that load the data into the base.

4. Once these basic "building blocks" are in place, the real creation of the database itself is a matter of normal operating procedures as:

- provision of necessary disk space
- writing the necessary JCLs for the Greek base
- introduction of translation tables and database parameters
- loading of data (titles, texts).

These procedures, well known for the other language versions of CELEX, do not demand in general more than 15 man-days (table translation and loading of data are of course excluded from that calculation as being the subject of the day-to-day work on the database under the responsibility of the DBA). As they are considered routine operations no special feasibility study is necessary for the creation of what amounts to one more "latin" version of CELEX.

5. Thus the problem can be stated as follows:

Main objective: Creation of the Greek version of CELEX
(technical part).

Associated objective: Coordinated introduction of the Greek
component into the context of the Commis-
sion's Informatics Architecture.

Which means: Using approved standards for the codifica-
tion of the Greek alphabet to proceed with:

- terminal definition, development and pro-
curement in coordination with other in-
house projects and if possible with Greek
public authorities
- DBMS changes to manipulate greek characters;
coordination with other developments concerning
MISTRAL, eventual adoption of BASIS, etc.
- changes in the packages used for loading
the base (THELEM, "chaine d' entree", inter-
face programs).

Trend to be avoided: Solution of the general problem first, then
creation of the Greek CELEX. In fact the
creation of the Greek CELEX can be regarded
as a driving force for accelerating the ge-
neral introduction of Greek into the computer
systems of the Commission, i.e. the lack of
a general solution for Greek should not im-
pede the Greek CELEX project. In that perspective
the solution adopted for the Greek CELEX must be
the base for a general solution concerning the
introduction of Greek in the computer systems of
the Commission.

(see also Memo concerning the Greek version of CELEX, annexed to doc.
IX/E/4-D(86)244, 19.3.1986).

II. PROPOSED SOLUTION

A. BASIC FACTS

1. A Greek database on Community legislation, as the Greek CELEX would be, must contain both greek and latin characters. In fact a great number of latin expressions frequently appear in greek texts of Community legislation and case law ("sui generis" decisions, "ad hoc" committees, programmes such as ESPRIT, RACE and BRITE, names of non-greek members of the European Parliament or companies, untranslated terms in technical texts, chemical symbols, units of measurement, Official Journal "L", "C" and "S" series etc). Most of them should be searchable and there is hence a need for mixed grecolatin lexica in the base.

Furthermore as Professor Passias has proved in various papers (see Annex 5), accented greek characters should be provided for in the lexica in order to reduce noise in searches. The extend of that noise problem is yet to be defined in the context of a more detailed statistical study (see Ch. II. B. 3. 2. b).

2. From the foregoing it can be seen that an 8-bit character set is required for the encoding of data. If the special non-english european characters are also to be taken into account it is obvious that the ISO 6937 family of standards should be used in coordination with the ISO 2022 and ISO 4873 standards. Adoption of a policy based on the ISO 8859 family of standards (or the ECMA equivalents) would restrict the character set to the greek and basic latin alphabet without the possibility of simultaneous processing of greek and non-english european characters (or even greek and special graphic or other characters). Furthermore the whole Informatics Architecture of the Commission is more or less based on the ISO 6937 family. This should be the case for the greek CELEX base as well.

3. Special attention should be given to the primary set used in the Commission and in Greece as well as to the transmission mode that is to be adopted (7-bit or 8-bit). If the economic considerations related to the higher cost of a 7-bit transmission mode are taken into account, it stands to reason that an 8-bit transparent mode should be used. But although this is a problem as far as the opening of the base to the Greek public is concerned it should not in any way hamper the creation of the Greek CELEX in the first place. In fact that problem should be tackled at the frond-end computer level before opening the base to users in Greece.

4. The appropriate standards for the coding of the greek alphabet were approved by ELOT only in June 1986 and circulated on September 1986 (standard 927 replacing the old 7-bit greek standard only for older applications; it does not provide for single-byte accented characters; standard 928 to be used in the context of an 8-bit extension of ISO 646; and draft standard 926 which was still pending in Dec 1986 and is to be compatible with 928, will also provide for details concerning the primary set used, teletex, videotex etc).

The EL0T 928 standard formed the basis for:

- an ECMA standard (8-bit LATIN/GREEK alphabet) that has been submitted to ISO for fast-track processing as a part of ISO 8859 (Registration N° 127)
- a DP for DIS 6937/7.

5. Presently computers in Greece do handle greek but in a non-standardized way. The incorporation of the new standard in one part of the existing equipment as well as in new systems will be decisively influenced by the greek government's public procurement programme. In fact the Directorate for the Development of Informatics of the Ministry of the Presidency of Government (Ministry of public administration), which is coordinating the public procurement programme in Greece will implement the new standard in the context of the introduction of modern information technology into the greek public administration. A large part of that introduction will proceed in connection with the large-scale Integrated Mediterranean Programme in the field of Informatics submitted by Greece to the Commission. Hence the need for coordination with the Greek public authorities and for close observation and interaction with the greek information technology market. It must also be noted that the setting up of the greek packet-switched network (HELLASPAC) will most probably start before the end of 1987, as the decision to go ahead with that network is imminent (expected before the end of January 1987). Hopefully the basic options to be retained for the operation of the network will be known in early 1987.

6. CELEX, if created and made publicly available in good time, will be the first greek full-text database to go online and will in that sense "set the standard" for future developments in the online market in Greece (see Annex 6).

A certain positive discrimination in favour of Greece on that matter is a widely publicized policy of the Commission (see Annex 7) in the context of its five-year programme for the development of the specialized information market in the Community (Council Decision of 27.11.1984 (84/567/EEC) OJ L 314, 4.12.1984, p.19).

B. BUILDING BLOCKS FOR THE CREATION OF THE GREEK VERSION OF CELEX

B. 1. TERMINAL

1. Terminals and/or personal workstations handling the greek alphabet are needed for the creation, management and interrogation of the Greek CELEX.

Their basic specifications should be:

- keyboard similar to the EUROPA keyboard used in the departments of the Commission. In fact the greek characters on the EUROPA keyboard are placed in the positions found on any greek typewriter. One basic feature of the keyboard is the floating accent and diaeresis (dialytica), (see SIC GUIDE S6)
- coded output according to the greek and international standards (ELOT 928, ISO 2022, 6937, 4873) which provide for single-byte accented characters as far as transmission (and processing) is concerned (see Annex 8)
- satisfactory display of characters (7 x 9 matrix)
- asynchronous mode of operation.

2. Given:

- the lack of standardized terminals on the market
- the expected implementation of the standards in Greece (see Ch. I.A above)
- the expected updating of the SIC S11 guide of the Commission

special, transitional but generalizable solutions should be implemented in order to avoid further delay of the project.

3. In fact four possibilities exist:

- procurement of two programmable terminals that will be able to generate greek characters according to the specifications (e.g. SCRIBEL terminals used by UNESCO)
- procurement of special terminals incorporating ROMs that will be able to generate greek characters according to specifications (cost depending on constructor, time from order to delivery more than 2 months)
- use of simulated terminals through a Local Support Unit (UNIX machine) or other computer, using the concept of Dynamically Redefinable Character Sets (DRCS).

- use of modified PCs that would conform with the specifications as stated above (or that would provide at least conformance with ISO 8859/Greek)

4. The first solution is of course the most attractive. With programmable terminals work can start immediately (or as soon as the DBMS and the loading programs are upgraded). That solution however cannot be generalized in the context of the Commission's Informatics Architecture.

5. The second solution is too difficult and time consuming to realize (accurate specifications, testing etc).

6. The third solution is in conformity with the Informatics Architecture of the Commission, and can be used in a more general way (e.g. SYSLING). A more or less partial development for a greek DRCS has already taken place in the Ingenierie Informatique in Luxembourg. A WYSE-85 terminal (VT 220) is loaded dynamically with a greek character set from an NCR Tower computer. The terminal can then be used to access computers via the X.25 network, the NCR computer acting as a transparent link. Unfortunately the simulated terminal does not provide for floating accent and diaeresis.

According to the Ingenierie Informatique the estimated cost for the further development of the program on the NCR Tower, in order to take into account the floating accent feature as well as the new standard is 6 man-weeks.

7. The fourth solution can be realized through a special ROM that will generate a standardized output for the PC. For the Olivetti M24 PC with the EUROPA kit the EPROM and the keyboard driver programs are to be rewritten (without of course changing the floating accent and trema feature nor the keyboard layout). This is necessary because the Olivetti machines do not provide for distinction between the capital letters (and the "o") that are common in both the greek and latin alphabets (see Annex 9). It may be possible to use the version of the M24 used in Greece together with an appropriate conversion software package (e.g. SMARTERM) but such a solution has to be tested. A further problem associated with that solution is the non conformity with ISO 2022 as far as the interchange of tables is concerned. However if this solution proves feasible it can be used not only as an intermediate solution for the creation and initial follow-up of the base but in the future as well. In that case a further development at the front-end computer is also necessary in order to provide for recognition of such a terminal (ISO 8859-like) by the system. The solution can be adopted for internal and/or external users if an ISO 8859 solution is adopted in Greece for general use (the primary set being the basic latin set, no possibility for more character sets and/or graphics, network parameter problems etc). It must be noted here the necessity of such a PC-based solution not only for terminal simulation. A PC that will be able to produce a standardized output is necessary in the text loading phase too (in the context of the eventual use of an OCR system).

8. The best approach to be followed is to proceed with two programmable terminals for the creation and initial loading/management of the base. At the same time attention must be given to the developments at the LSU and personal workstation level: VT 220 simulated terminals via NCR Towers for use in the context of interrogation of the base and standardized M24s for interrogation and, mainly loading of the base (via OCR). It is obvious that these developments, with the exception of the OCR subproject, will serve the user community in the context of the Commission's Informatics Architecture.

B. 2. PRINTERS

1. Printers capable of printing greek are necessary at all three levels of the Informatics Architecture. In fact:

- a fast printer is necessary for production of updating listings for the greek base. Such a printer is already necessary for the proper operation of the Computer Centre's branch in Brussels where listings, connected with the management and the operation of the CELEX databases are printed. Greek has already been taken into account in the context of the procurement of a new fast printer for the C.C.'s branch in Brussels. Some effort will be necessary from the C.C.'s part in order to implement the greek alphabet into the printer.
- concerning the printer at the Local Support Unit level it must be noted that an order has been placed with the constructor for delivery of a special PROM for printing greek for the PHILIPS GP300 printer used with the NCR Tower. Unfortunately the delivered product is not satisfactory. A new order should be placed or a laser printer used instead.
- M24s can be equipped with laser printers to cope with greek (the PR 38 Olivetti printer may also be used but that remains to be tested).

2. With the exception of the C.C.'s fast printer it looks as if small laser printers are the best solution, as they can also be used in an office automation environment.

B. 3. CREATING THE BASE ITSELF - THE DBMS

1. All existing language versions of CELEX run under the MISTRAL V.5/GCOS 8 DBMS. The specifications of the DPS 88/81 - GCOS 8 -MISTRAL V.5 system refer explicitly to conformity with ISO standards 2022, 4873, 6937/1 & 2 (see Annex 4 of "Contrat de location -DPS 88/81", doc IX.E.1.IPA (86) 33F).

However there is no such conformity. If there was, the creation of the Greek CELEX would have been a matter of routine technical assistance and exploitation procedures as was the case for the other language versions (apart from the problem of the terminal). Following several official and private communications with the BULL people it became clear that conformity to the above-mentioned standards does apply to MISTRAL V.5/GCOS 7 and will be implemented with the GCOS 8 version following BULL's internal procedures and priorities (i.e. its commercial objectives and policy). A letter of the Commission's Computer Center to BULL (dated as of 3.10.1986) concerning the implementation of these standards to the DPS 88/81 System as well as to the MISTRAL V.5 package remained unanswered (end Dec 1986).

Fortunately for the Commission the whole procedure can be accelerated if Article 11 of the contract is implemented. This Article (see Annex 10) stipulates that the Commission has the right to withhold maintenance payments to BULL if the system does not conform to international standards.

2. Further features of the DBMS to be used for the creation of the Greek CELEX are as follows:

a. capability of processing 8-bit characters internally with the possibility of handling different character sets as far as communication is concerned, in conformity with ISO 2022, 6937 and 4873 or at least with ISO 8859. The ideal situation would be a package capable of handling all the basic and special latin characters plus greek, and providing an interface for external communications able to handle either 8-bit ISO 8859 terminals or 8-bit ISO 6937/2022/4873 terminals with the basic latin, special latin and basic greek sets. This capability is considered of prime importance for the creation of a first test version of the Greek CELEX. Handling of different types of greek terminals is a task that can be confined in part to the front-end computer level. The extent to which such a repartition of tasks will be implemented depends entirely on the producer.

b. capability of handling properly the collating sequence of the greek alphabet. In fact the need to use latin characters as well as accented greek ones in the context of the search implies the use of the full greek set defined in the 8-bit standard. Unfortunately, the very idea of using single bytes for accented letters ruins the proper alphabetical ordering of greek words. According to the standard for example, 'A is before A ; that means that the word 'ΑΓΙΟΣ will precede all the words starting with ABA in an alphabetical ordering based on the existing collating sequence. If on the other hand the collating sequence was reversed to host A before 'A the word ΑΝΕΡΠΑ will precede the word 'ΑΓΙΟΣ. In both cases the alphabetical ordering is not correct. In fact the accent in greek does not carry weight as far as the alphabetical ordering is concerned. Proper alphabetical ordering is however imposed only during lexicon consultation or printing (where new words are introduced). This means that the DBMS should provide for a module that will sort alphanumeric lexica according to proper alphabetic ordering (through perhaps the alphabetical ordering of a dumb or disposable computer-generated non-accented prefix for each accented word). These "doubled" lexica would be used only during lexicon consultation and not during direct interrogation. It is assumed that all latin words will be ordered before greek ones. This capability is considered of secondary importance for the creation of a first test version of the Greek CELEX. However it should be taken into account in the event of a major "overhaul" of the DBMS in order to provide for the 8-bit capability.

In fact, as full text databases are not yet available in greek, few things are known about the extent of the noise problem posed by the accented letters. Professor Passias has analysed the problem qualitatively but a detailed statistical study in the context of a full morphological study of the greek language is still pending (see Annex 6).

The best approach for identifying and solving the problem is to create a test version of a Greek CELEX with a DBMS having the first capability, study the problem statistically and finally proceed with necessary changes of the DBMS if necessary. Such preliminary testing can be done in cooperation with users in Greece, provided their operating costs are covered in the context of a more general morphological study of the greek language (see Annex 6).

c. capability of handling a greek dialogue with the user. The need for a greek dialogue for interrogating the base is almost self-evident, given the fact that the keyboard to be used will be of the EUROPA-type. In such a keyboard, passing from the latin to the greek mode is done through the use of a special key (or combination of keys) that emit the appropriate escape

sequences. To return from the greek to the latin mode a similar operation is necessary. In the context of the daily interrogation of the base, one can easily imagine situations such as the following :

m:qu :EE (ατμοσφαιρική & ρύπανση) SAUF (αερολύματα OU DDT) (1)

m:zo et 2 :KEIM (2)

m:le :EE ESPRIT :TITA or m:le : ΔΙΚ Agnelli : ΓΝ.ΕΙΣ (3)

For the underlined characters one must change keyboard mode. That means 6 more strokes for example (1), 2 for example (2) and 4 for example (3). With a greek dialogue only 2 supplementary strokes are needed for examples (1) and (3) and none for example (2).

Thus a greek dialogue is necessary for purely ergonomical reasons. This dialogue can however be restricted only to the commands emitted by the user and to the basic messages sent by the system (high-frequency messages); it can thus be called a "partial" greek dialogue. The remaining low-frequency messages of the system can be in english or french as the DBMS will be capable of handling both character sets.

Even if the Common Command Language (CCL) is used, the greek component will be necessary. In fact the National Documentation Center in Greece has developed a greek version of the CCL, the Greek Command Language (GCL) for internal and/or external use. The GCL was developed on a 3230 Perkin Elmer computer (operating system 32). All programs are written in FORTRAN 77 except for one written in PASCAL. Further investigation of the portability of the application is required. In any case the basic options retained should form the basis for future developments in the field.

B. 4. LOADING THE BASE

1. The actual updating operation of the CELEX databases is described schematically in Annex 11. A greek or rather a grecolatin component must be provided for in the following files:

- Archive file (greek titles)
- CELEX tables file (greek translation of controlled vocabulary)
- COPARCHAMP file (greek translation of field names)

as well as in the following programs:

- "chaîne d'entree"
- multilingual interface
- textual interfaces
- pre-MISTRAL filter and font-change programs
- other programs as necessary (INFOCELEX, synonymy etc)

For introducing necessary changes in all these programs, as well as in the THELEM data-entry package, the SDA has estimated necessary development time to a total of 6 man-months.

2. Then comes the generation of the base and the loading of data. It has already been mentioned that this part is not included in the technical aspect of the problem, being regarded as part of the routine operating procedures; it is given here for information purposes only. The check-list for the necessary steps is as follows:

- provision of necessary disk space (resp. C.C.)
- writing the necessary JCLs for the greek base (resp. SDA)
(these steps are to be provided for in the context of normal operating procedures of the C.C. and SDA).
- definition of the base as follows: (resp. DBA/C.C./SDA)
 - . table translation (approx. 30 man-days)
 - . names of fields and lexica
 - . definition of MISTRAL parameters
 - . coparchamp
 - . translation of secrets table (+ THELEM data-entry)
 - . completion of Archive heading 2TI for greek overflow documents (translation and introduction of the message)
 - . INFOCELEX : translation/completion of chain for greek
 - . general revision of abovementioned points(these procedures will call for approx. 7 man-days)
- forecast of machine time necessary for loading (over a period of approx. 1 month)
 - . loading of tables (10 - 15 man-days of data-entry)
 - . loading the base (through the archive)
 - . coverage of missing titles
 - . coverage of missing texts (several months or even years)
- compilation/reproduction of internal brochure (15 DBA man-days).

3. Coverage of missing titles and texts may be a serious problem. In fact texts to be loaded in the base can be analysed as follows:

- treaties (not available on magnetic media but encoded by the Center of International and European Economic Law in Thessaloniki on a UNIVAC computer; they can be available perhaps on a mutual exchange basis) = 6 Mc
- special edition (not available on magnetic media although the titles can possibly be recovered through the Directory that is available on magnetic tapes) = 120 Mc
- Official Journals in greek since 1981 (85% available on magnetic tape) = 10 Mc
- Court Reports (not available on magnetic media) = 81 Mc
- Titles of Sector 5 & 9 documents (not available on magnetic media) = 5 Mc

4. Covering all texts not available on magnetic media (more than 216 Mc or 108.000 pages A4) by means of conventional encoding/data-entry will be time-consuming and not cost effective. Only a multifont Optical Character Reader system will do the job quickly, not only for greek but also for the missing texts of the other language versions of CELEX. The Ingenierie Informatique has been actively testing a new OCR system connected with an M24 PC; the tests are expected to be concluded by Jan -Feb 1987. Preliminary results showed encoding time of 2-4 minutes per A4 page with a 95% accuracy. Even if the tests are positive two further conditions must be met in order to use the system for data-entry:

- a. modification of an M24 PC in view of producing standardized output or eventual use of the M24's version that is sold in Greece (see Ch. II.B.1)
- b. transfer of the encoded texts from the M24 to the DPS 88 possibly via the DPS 6.

Concerning point b. it must be mentioned that the Computer Center's Brussels Branch is actively developping an interface program which will permit the direct connection of two M24s to the DPS 6 computer (this computer accepts 5 1/4 diskettes with format MODE 400, GCOS 6 R.3). In the context of this development the problem of transferring data from the M24 to the DPS 6 and then, via tape produced locally or via the network, to the DPS 88 must also be considered. If this transfer proves not feasible the following solutions can be envisaged:

- an interface card on the M24 PC that will transform it to a DPS terminal with capability of direct file transfer or
- connexion of the M24 PC to a tape-producing device.

These solutions should be tested in the context of text coverage for all the language versions of CELEX. Approximate cost for an OCR-oriented solution would be: 600.000 BF for scanner + OCR program and 25.000 BF for interface card; the PC's cost is not considered. For the Greek base only 1/7th of that cost should be considered plus 1.200 man-days of the operator of the machine (6 man-years or approx. 10 MBF). This cost should be compared with the 25,92 MBF needed for conventional encoding. The volume of this backlog can eventually be reduced if a reduction of the coverage of the base is envisaged.

5. Two more pieces of information are of importance in this context:

- the OPOCE is also committed to providing full coverage of all texts not available on magnetic media (see doc. OPOCE/FT/aam/14621 of 7.11.1986)
- encoding of case law is the responsibility of the Court of Justice
- encoding of all Sector 9 and a part of Sector 5 documents is the responsibility of the European Parliament.

III. ALTERNATIVE SOLUTIONS

1. In the previous chapter, alternative solutions have been examined for all the building blocks of the Greek CELEX but one, the DBMS. In fact, alternative solutions for the terminals and the loading of missing texts will be more or less the same, whatever the DBMS (with the exception of the loading programs themselves).

The question now is: is it possible to use a different DBMS for the Greek CELEX other from MISTRAL? The answer is not obvious.

2. The Commission has retained for internal use two full text DBMSs: MISTRAL and BASIS. Although this study is not a comparative study for MISTRAL and BASIS an attempt will be made to compare the pros and cons of the two systems as far as the Greek CELEX project is concerned.

- MISTRAL runs only on the DPS 88/GCOS 8, is rather poorly supported by BULL, cannot handle greek (although the contract does provide implicitly for that), is used for all the other language versions of CELEX and thus is linked to all the special loading programs for those versions. It is one of the few purely European information technology products used by the Commission.

- BASIS runs on all the Commission's mainframes except on ICL and DPS 88/GCOS 8 (a version of BASIS on GCOS 8 ordered by ELF- AQUITAINE is expected for the first quarter of 1987), is fairly well supported by BATTELLE's Geneva branch and is expected to be able to handle Greek in the context of its K version which is to be delivered (and tested) in early 1987. A new module of BASIS will provide for definition by the user of a, most probably 8859-like, 8-bit codification table to be used in the DBMS; thus a greek dialogue and base could presumably be created.

3. However this is quite a simplistic approach. If a Greek CELEX is to be created under BASIS the following problems will have to be resolved by "resource - hungry" SDA and CC:

- parallelism of bases running under different DBMSs
- loading of bases running under different DBMSs i.e. complete rewriting (and not only changing) the whole series of loading programs
- re-education of a small part of the user population (internal and external users)
- facing the shortcomings of a different DBMS that may not have been used for such large and complex applications as CELEX
- facing the possibility of changing the structure of CELEX in order to better exploit a different DBMS; in that case the structure of a Greek CELEX under BASIS (logical, physical) will look (and be) quite different from the structure of the French or English CELEX under MISTRAL and
- lose one good opportunity to press BULL to develop its product further.

4. Some of these problems however could be solved in the context of a general migration of all the CELEX databases under BASIS. Such a decision will be taken, if ever, on the basis of a general and comprehensive feasibility study and not only on that of BASIS's ability to handle greek. It seems inconceivable to ask for a third feasibility study for the creation of the Greek CELEX under BASIS, other than in the context of a general "conversion" of all the other CELEX language versions and maybe all the other bases of the Commission that are currently running under MISTRAL. Then of course one will have to solve the problem of re-educating a user population that amounts to almost 900 internal and external users.

5. On the other hand, as BULL will be obliged to rewrite a part of the kernel of MISTRAL in order to have it conform with the international standards mentioned in the contract, the Commission has the opportunity, by getting associated with that project, to impose some changes to the product according to its specific needs.

6. One of the arguments in favor of BASIS is the planned conversion of EURODICAUTOM, which is to run under that DBMS. Ideally one could imagine the Greek CELEX and EURODICAUTOM accessible by the translation divisions of the Commission (by far the largest internal clients of both systems) on the same machine and under the same DBMS. Provision should then be made for easy access of both systems by external users through standardised terminals (and not via SIEMENS synchronous terminals as is now the case for the Greek EURODICAUTOM). However the examination of such an option is rather unrealistic in the context of the present study.

IV. RESPONSIBILITIES

Project Owner : The Council Working Party on Legal Data Processing represented by the Commission's representative Mr. H. Bernstein.

Project Manager : P. Alevantis, IX/F/4 ,Data Bases Section.

System Supplier : Applications Development Department (SDA) IX/F/7, Documentary Section, Mr. J. Marin-Navarro.

Users : Potential users are all the users of CELEX in the Community Institutions as well as in Greece. Special user groups are the translation divisions (not only the greek ones) in all Institutions, the Legal Service (when participating in cases before the Court of Justice for which the language used is Greek), the Court of Justice (for dealing with cases in Greek), and the Greek Members of the European Parliament or of the Economic and Social Committee (including their staff).

Potential external users are the Greek civil service, special interest groups and associations in Greece concerned with the application of Community law, large companies and lawyer's offices dealing with Community affairs etc. (see previous study in Annex 4).

Participating Departments : Ingenierie Informatique (IX/F/6)
Computer Centre (IX/F/3)
TER (IX/F/5)
TAI (IX/D/2)

Data Base Administrator : P. Alevantis (IX/F/4)

Data Base System Administrator : Same as for the other language versions of CELEX.

V. PROJECT PLAN

The establishment of a PROJECT PLAN and TIME SCHEDULE depends in fact on certain conditions for which the Commission departments are not directly responsible (e.g. upgrading of the MISTRAL DBMS).

A. ACTIONS

1. The Ingenierie Informatique should in the first place:

a. Incorporate the new standards in the appropriate SIC guides and into the subsequent calls for tenders in coordination, if possible, with similar developments in Greece. Products concerned by the Greek CELEX project are : personal workstations and/or terminals, PCs, LSUs, printers etc.

In the meantime it should:

b. Provide the 6 man-weeks necessary to develop the code translation ("terminal simulation") program on the NCR Tower computer according to specifications in the context of the Local Anteserver.

c. Proceed with the quick adaptation of the M24's Europa EPROM to the standardized latin-greek alphabet or the purchase of 2-3 M24s like the ones used in Greece (if they conform to specifications).

d. Verify and eventually re-order the greek ROM for the Philips GP300 printer and examine the case for other NCR-compatible or M24-compatible printers (especially small laser printers).

2. The Informatics Planning and Administration should withhold maintenance payments to BULL as long as the System does not conform to international standards.

3. The Computer Centre should:

a. Arrange with BULL to expedite the upgrading of the MISTRAL DBMS and/or the front-end computer in conformity with international standards and/or options retained by the Greek PTT for the operation of the greek X.25 network (HELLASPAC).

b. Provide, if possible, for a close interaction with the DBMS producer on the subject of the greek collating sequence in the context of the follow-up of a test version of the Greek CELEX.

c. Arrange with the DBMS producer the problem of the "partial" greek dialogue possibly in coordination with the National Documentation Center in Greece (GCL). Examine the implementation of the GCL in the context of the introduction of greek in the computer systems of the Commission.

d. Examine the possible implications, if any, on the Time Sharing System and arrange with the producer of the basic software that the TSS will comply with the basic options retained.

e. Provide for necessary disk space and other exploitation resources needed for the generation of the base in good time. Provide for resources concerning the implementation of the Greek alphabet into the fast printer.

f. Take into account the necessity of M24-to-DPS 6/DPS 88 data transfer in the context of the development of the M24-DPS 6 interface program.

4. The SDA should:

a. Provide for the 6 man-months necessary for upgrading the loading programs.

b. Write the JCLs for the greek base in good time.

5. The TER should:

a. Provide access to the NCR computer in Brussels (IMCO) for original testing of the base.

b. Provide 2 or 3 WYSE 85 terminals. If the Ingenierie does not provide the program for the simulation of the greek terminal (see point 1. b. above) provide 2 or 3 special programmable terminals (in coordination with the Ingenierie Informatique). One at least modified M24 is also needed if the OCR option is retained.

c. Provide for 2 or 3, 8-bit transparent communication ports for local processing.

d. Provide network connection with 7 or 8 bit transmission capability for the terminals mentioned in point 6. above.

e. Study the compatibility of the solution mentioned in point 1. b. above with the MPC project (multiprotocol convertor).

6. The TAI is asked to provide necessary typing assistance (10-15 man-days) for encoding the CELEX translation tables in greek. TAI is also asked to support, via their NCR computer, some initial test users (e.g. Greek translation Brussels) and to provide printing facilities, if required.

B. TIME SCHEDULE

1. A time schedule can be established only if the date for the delivery of an upgraded MISTRAL is definitely known. Various participating departments should then agree on such a time schedule.

A flow chart of the whole project is given in Annex 12.

VI. COST/BENEFIT ANALYSIS

A. PROJECT RELATED COSTS

1. Terminals:

- 2 or 3 special programmable terminals (160.000 BF per terminal) or
- 6 man-weeks of programming and testing and
- 2 or 3 WYSE-85 terminals (60.000 BF per terminal)
- at least one M24 with hard disk (greek specifications) (150.000 BF) or one M24 with hard disk and specially developed EPROM (if the OCR option is retained)

2. Printers:

- fast C.C.'s printer: only the cost of the greek font (193.500 BF)
- Philips GP300 : presumably already paid for
- laser or other printers for the M24s : depending on number of M24s delivered (for the DM 580 printer : 90.000 BF)

3. MISTRAL upgrading : no cost, as being a contractual obligation of BULL. The Commission can in fact cover most of the project-related costs by withholding maintenance payments to BULL (Hardware: 1.575.909 BF per trimester, Software: 451.766 BF per trimester)

4. Upgrading of loading programs : 6 man-months of programming.

B. CHANGES TO OPERATIONAL COSTS

1. Loading of the base:

- disk space approx. 400 MB
- JCLs for greek base : approx. 10 man-days of programming
- definition of the base : 30 man-days DBA
 - 7 man-days operator
 - 15 man-days encoding
- prevision of machine time for loading over a period of approx. 1 month.

2. Normal operation:

- monitoring of the base 1A/LA official (DBA) in the context of the CELEX team
- coverage of missing titles/texts (for all Community Institutions), depending on solution adopted :
 - * OCR = approx. one seventh of 1MBF and 6 man-years operator (C official)
 - * encoding = approx. 25,92 MBF

C. BENEFITS

Fulfilling an obligation stemming from the Treaties is an initial benefit in itself. Some other benefits are:

1. Acceleration of the introduction of the greek component into the Commission's computer systems, which will result in the better operation of officials obliged to work with greek texts (enhanced productivity, simplification of operations etc.)
2. Enhancement of the Commission's image as an exceptional multilingual international organization.
3. Opening of a Greek CELEX database to all potential users (see Ch IV and Annex 4). This will have a positive effect on:
 - * translation performance,
 - * information of officials in critical posts (Legal Service, Court of Justice etc.)
 - * dissemination of Community law in Greece (better informed civil servants, companies, lawyers, etc.)
4. Development of the specialized information market in Greece in line with DG XII's policies.
5. Better understanding of problems concerning the behaviour of the greek language in the context of a full-text DBMS.
6. Enhancement of the IT's development in Greece by implementing international standardization, in line with other DG XIII policies.
7. Since the Commission charges for disseminating CELEX, some compensation of costs can be expected in the long run (if CELEX is sold extensively in Greece).

VII. RISKS ANALYSIS

1. At present two risks can be identified as far as the Greek CELEX project is concerned :

a. adoption of a policy calling for the general introduction of Greek in the Commission's computer systems as a prerequisite. This risk is rather minimal because it can only serve as an excuse for further delaying the project : the creation of the Greek CELEX is by itself by a large extent the introduction of Greek in the Commission's Informatics Architecture !

b. BULL does not provide an upgraded MISTRAL. In such a case two further possibilities exist for the Commission :

- application in its full extent of the contract with BULL or
- creation of a greek version of CELEX under another DBMS.

2. In the case that a Greek CELEX is to be created under another DBMS, a new feasibility study is not necessary. The present feasibility study describes the characteristics and specifications of all the building blocks necessary for the creation of a Greek CELEX. Deviations from the actions to be undertaken (see Ch. V. 1.) concern only the re-writing of the loading programs in coordination with the new database structure that will be eventually adopted. In such a case some 6 man-months of programming are to be provided by SDA.

3. If on the other hand the contract with BULL is to be fully applied (see denounced) or if the creation of the Greek CELEX under a different DBMS (and on a different computer) is not considered a practical solution or finally, if the "conversion project" is proved to be not feasible altogether, then a migration of all CELEX databases from MISTRAL too another DBMS may be considered. In such a case a full feasibility study that will take into account the greek component will be necessary.

4. Concerning the opening of CELEX to greek users some adaptation of the programs and/or the front end transcoding may be necessary.

ANNEXES

I

*(Information)***COUNCIL****COUNCIL RESOLUTION
of 26 November 1974
concerning consolidation of its Acts**

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Whereas, for legal clarity and convenience of interested parties, it is desirable to group in a single text those Acts of the Council which have been amended several times; whereas therefore the Council has already undertaken, with the aid of the Commission, to publish by way of information the consolidated version of certain of these Acts; whereas, without prejudice to this experiment and the enquiry into other possible methods of consolidation, a real legislative consolidation, involving the repeal of earlier Acts should so far as possible be effected, for reasons of legal security; whereas it is desirable further to examine possible new procedures for the consolidation of Community legislation;

Invites the Commission to submit proposals for the consolidation of those of its Regulations or Directives which have been amended several times;

Undertakes to examine those proposals as quickly as possible, without bringing into question, during that consolidation, the substantive solutions contained in the consolidated texts.

COUNCIL RESOLUTION

of 26 November 1974

on the automation of legal documentation

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Considering the conclusions which it reached on the automation of legal documentation at its meeting in Luxembourg on 3 June 1971;

Having taken note of the report submitted by the Commission, as a result of the abovementioned meeting, and of the working document drawn up by the Commission in collaboration with the services of the other institutions;

Aware of the increasing importance in the legal field of easily and rapidly accessible automated documentation in order to provide a better knowledge of Community and national law throughout the Community;

Anxious to contribute to the improvement of current methods of automating legal documentation;

Convinced that in order to facilitate and encourage exchanges of information it is necessary to develop cooperation between documentation centres, both between national centres and between the latter and the Community centre;

Convinced that, for the sake of efficiency, standard automation of documentation on Community law should be ensured by the Community institutions;

Whereas the automation of legal documentation should be in keeping with the Community policy on data processing defined in the Council resolution of 15 July 1974 ⁽¹⁾ and should not give rise to delays in developments, particularly in the short run, of the Community system,

HAS AGREED AS FOLLOWS:

I

The automation of legal documentation, with regard both to the dissemination of Community law and to

exchanges of legal information between Member States, is a matter of interest which may warrant both Community action and cooperation between national centres.

It is essential that work already undertaken by the institutions of the Community be continued and that the expansion of activities in other fields, as envisaged in the Commission report, be examined in the light of the work of the Working Party referred to in item III and of the proposals of the institutions.

II

The Council:

- considers it necessary that the Community institutions jointly introduce an inter-institutional system of computerized documentation on Community law on a gradual basis, within the limits of the budgeting credits which shall be made available for this purpose;
- recommends that this documentation be kept at the disposal of Member States, under arrangements to be defined.

III

A Working Party, comprising representatives of the Member States and representatives of the Community institutions and of the Economic and Social Committee, shall be set up and instructed, on a proposal from the Commission and taking into account the work already done:

- (a) to examine the aims of the inter-institutional in relation to the national systems, in particular as regards the documentary field to be covered, the allocation of tasks, possible system link-up modes and the possibility of exchanging information already processed;
- (b) to examine the technical aspects of the automation of legal documentation, in particular documentation methods and techniques, data processing equipment and techniques, the

⁽¹⁾ OJ No C 86, 20. 7. 1974, p. 1, and OJ No C 91, 3. 8. 1974, p. 10.

- efficiency of the inter-institutional system and the compatibility between systems;
- (c) to examine to what extent automation of legal documentation can facilitate the drawing up of indexes of Community law;
 - (d) to examine the legal aspects of the automation of legal documentation, in particular as regards the selection and objectivity of information and access to recorded data;
 - (e) to examine the arrangements for participation by the representatives of the Member States in the definition by the Community authorities of guidelines for the inter-institutional system;
 - (f) to examine a medium term development plan for the inter-institutional system submitted by the Commission, in particular the priorities and costs of the implementation of the various stages in order to define the guide lines for the development of a link-up between the inter-institutional system and the national systems, taking into account the results of the studies provided for in subparagraph (a);
 - (g) to take account as regards these developments of their consistency with the Community policy on data processing.
- The Working Party will make its first report to the Permanent Representatives Committee within six months of its being set up.

C O N T E N T S

THE CELEX BROCHURE

INTRODUCTION

I. COVERAGE

- A. Legislation
- B. Preparatory documents
- C. Case law
- D. Parliamentary questions
- D. National provisions implementing directives

II. STRUCTURE

- A. Texts
- B. Bibliographical data
- C. Classification data
- D. Dates
- E. Cross-references

III. EXAMPLES

IV. THE "DIRECTORY OF COMMUNITY LEGISLATION IN FORCE"

INTRODUCTION

CELEX, the computerized documentation system for European Community law, is available to the Community institutions and to the public. At present, CELEX exists in several languages and will eventually be made available in all the official Community languages.

Documents dealing with legislation, case law, preparatory work, parliamentary questions and national provisions implementing directives are all covered by the data base.

The purpose of this brochure is to give the reader some insight into the coverage and research possibilities offered by the English version of CELEX.

I. COVERAGE

Although CELEX is, from the user's viewpoint, a single data bank, it consists of five major components, each covering one or more documentary sectors.

A. Legislation

This covers most of the legal instruments of the European Communities, consisting of:

1. the Treaties establishing the European Communities, subsequent treaties amending or supplementing them and the Accession Treaties;
2. agreements and other legal acts resulting from external relations maintained by the European Communities, and by the Member States where such relations are connected with the Communities;
3. both binding and non-binding secondary legislation such as regulations, directives and decisions under the EEC and EAEC Treaties and decisions and recommendations under the ECSC Treaty; opinions, recommendations (EEC, EAEC), resolutions, rules of procedure and so on;
4. supplementary legislation such as decisions of the Member States' representatives meeting within the Council and international agreements concluded between Member States in order to implement the Treaties.

In the English version, sectors 2 to 4 contain all acts in force on 1 July 1979 and all subsequent acts. Acts governing day-to-day management and which expire within a few weeks of publication are not included.

The legislation content is updated weekly, new documents being introduced within two to three weeks of publication in the Official Journal.

B. Preparatory work

This consists of Commission proposals, resolutions of the European Parliament and opinions of the Economic and Social Committee and the Court of Auditors together with certain other preparatory acts.

i. Commission proposals

All proposals pending as of 1 January 1984 and all proposals submitted to the Council after that date, provided they are not considered confidential by the Commission's Secretariat-General. These documents are introduced into the data base three weeks after presentation to the Council.

ii. Parliament resolutions

Resolutions embodying opinions, own-initiative as well as those relating to the budget. All documents from July 1979 onwards are available.

iii. Economic and Social Committee opinions

All ESC opinions (whether requested or own-initiative) from 1975 onwards.

iv. Court of Auditors opinions

All opinions of the Court of Auditors since 1977, provided they are relevant to the Community's legislative activities.

v. Other opinions (ECSC Advisory Committee and so on)

Resolutions and opinions are introduced into the data base four weeks after publication. However, it should be noted that, for these documents, there may be a delay of several weeks between the initial date of the opinion or resolution and its publication date.

C. Case law

This covers all Court of Justice judgments and orders, in full, since 1954 and all opinions of the Advocates-General since 1965. A summary of the Court's decision appears in the data base approximately six weeks after the decision has been delivered and the complete text is entered following publication in the Reports, which can be as much as one year later. This sector is updated monthly.

D. Parliamentary questions

Included in this sector are summaries of all questions addressed by MEPs to the Commission or the Council since the first term of office of the directly elected Parliament (elections of June 1979) - written and oral questions as well as those asked at question time.

Parliamentary questions are updated monthly and appear approximately four weeks after publication. Note that publication can take several months.

E. National provisions implementing directives

This sector contains references to the legal provisions adopted in each Member State to implement Community directives and of which the Commission has been notified (see example 4 in Chapter III).

II. STRUCTURE

CELEX was conceived from the outset as a system containing complete text (as far as the majority of documents is concerned) as well as a great number of analytical headings (fields). Anyone wishing to make full use of the system needs to have a good knowledge not only of the coverage but also of the structure of the data base.

Below, you will find a brief description of the data fed into the system for each type of document and an explanation of how they can be used to conduct a search. This will help you to understand how the complexity of the system can in fact prove an advantage to an experienced user. Though some users may be satisfied with simple interrogations in the textual or bibliographical fields, a more experienced user can carry out more sophisticated or extremely precise interrogations because of the great variety of analytical fields.

A. Document content

Celex documents always have a complete title. Also, full text will eventually be available for all the Treaties, agreements and binding legislation in force as at 1 July 1979 as well as for Court judgments and orders. Descriptors or summaries are provided for parliamentary documents and questions.

All these "textual fields" (title, text, descript, summary, etc.) can be seen on the screen. However, they are intended mainly for research purposes by means of the "key words" or "terms" they contain (see examples in Chapter III).

B. Bibliographical data

Each CELEX document contains a number of bibliographical fields, namely :

- i. the CELEX document number;
- ii. the sector number and year;
- iii. the name of the institution, body or country from which the act emanates;
- iv. the legal form.

All data from these fields may be used as "terms" for information retrieval.

C. Document classification

All CELEX documents are indexed according to two classification systems under the fields "sub.mat" and "direct".

In the field "sub.mat", documents are indexed by means of descriptors which broadly match the main chapters of the Treaties.

The field "direct" consists of an eight-digit code corresponding to the chapters and subdivisions of the "Directory of Community legislation in force" (see also Chapter IV).

Though not perhaps very important for screen viewing, these two fields provide a way of carrying out research in a specific field of Community law (see examples in Chapter III).

D. Dates

Though a great variety of date fields is available in CELEX, only three or four are relevant to any one document. The document date is always given, as well as one or more of the following :

- i. the date of signing and ratification of agreements;
- ii. the date of effect, of end of validity and of publication of legislation;
- iii. the date of the debate and vote for parliamentary acts;
- iv. the date on which the judgment was delivered for case law;

and so on.

These data enable the user to carry out research with the information contained in the "date" fields.

Also, a very useful feature of interrogation with dates - the "QI" procedure - allows a user to select documents on the basis of a specific period of time. For example, you can locate all acts which took effect during a given period, or all regulations currently in force (see Chapter III for examples).

E. Cross references

Legal and logical relationships between documents are also analysed, resulting in a great number of cross-reference fields, which enable the user to carry out a search on the basis of such relationships.

Nearly all documents contain cross-reference fields, which provide information such as :

- i. the legal basis of the act in question;
- ii. other acts referred to in the act;
- iii. acts amended by the act concerned;
- iv. subsequent acts amending it;
- v. court decisions affecting the act;

and so on.

For example, these cross-reference fields would enable you to :

- i. determine which acts are based on Article 235 of the EEC Treaty;
- ii. find all the acts amending Regulation No 1408/71;
- iii. find any judgments relevant to Article 64 of the abovementioned regulation.

III. EXAMPLES

In the examples given below, the questions and commands formulated by the user are shown in lower-case letters while the responses given by the CELEX system are shown in capitals and bold type.

1. Are there any provisions in secondary legislation on summertime arrangements?

```

PROCEDURE OR SEARCH STATEMENT 1
?:oj summertime
MULTIMEANING TERM SUMMERTIME : 2
T1 SUMMERTIME :TITLE
T2 SUMMERTIME :TEXT
SELECT OR NO ?
?s t1
*** 1 *** POSTINGS:      51
  PROCEDURE OR SEARCH STATEMENT 2
?'3' & 1
*** 2 *** POSTINGS:      4
  PROCEDURE OR SEARCH STATEMENT 3
?m:vi
  DOC.NUM : 385L0582
  TITLE   : 85/582/EEC : COUNCIL DIRECTIVE OF 20 DECEMBER 1985 AMENDING
           DIRECTIVE 84/634/EEC ON SUMMERTIME ARRANGEMENTS
  PUB.REF : OFFICIAL JOURNAL NO. L 372 , 31/12/85 P. 0038

```

The second document of the four gives you the directive in question.

2. A simple search will show you whether Regulation No 1408/71 is still in force and whether there are any acts amending it.

```

PROCEDURE OR SEARCH STATEMENT 4
?371r1408+
*** 4 *** POSTINGS:      1
  PROCEDURE OR SEARCH STATEMENT 4
?m:vi ref + :dates :modified
  DOC.NUM : 371R1408
  TITLE   : REGULATION (EEC) NO 1408/71 OF THE COUNCIL OF 14 JUNE 1971
           ON THE APPLICATION OF SOCIAL SECURITY SCHEMES TO EMPLOYED
           PERSONS AND THEIR FAMILIES MOVING WITHIN THE COMMUNITY
  PUB.REF : OFFICIAL JOURNAL NO. L 149, 05/07/71 P. 0002
  DATES   : OF DOCUMENT.....: 14/06/1971
           OF EFFECT.....: 01/10/1972; ENTRY INTO FORCE SEE ART 99
           OF END OF VALIDITY: 99/99/9999;
  MODIFIED : AMENDED BY ... 172BN02/7/PT1A7 AMENDMENT. DAN. TEXT
           AMENDED BY ... 172BN07/7 DEROGATION IRL TL 1/1/78
           DEROGATION-IN. 172BN07/7 DEROGATION IRL TL 1/1/78
           APPLIC.EXT.BY. 172BN08 DK IRL GB FR 1/1/73
           APPLIC.EXT.BY. 172BN10/3 FR 1/4/73
           AMENDED-BY.... 179HN01/09 COMPLETION ANN 1 FR 1/1/81
           AMENDED-BY.... 179HN01/09 COMPLETION ANN 3 FR 1/1/81
           AMENDED-BY.... 179HN01/09 COMPLETION ANN 5 FR 1/1/81
           AMENDED-BY.... 179HN01/09 AMENDMENT. ANN 2 FR 1/1/81

```

3. Are there any European Court of Justice decisions quoting Articles 52 and 57 of the EEC Treaty (right of establishment) and concerning architects?

PROCEDURE OR SEARCH STATEMENT 8

?:crossref 157e052+ or 157e057+

*** 8 *** POSTINGS: 218

PROCEDURE OR SEARCH STATEMENT 9

?:reports architect+

*** 9 *** POSTINGS: 5

PROCEDURE OR SEARCH STATEMENT 10

78 & 9

*** 10 *** POSTINGS: 1

PROCEDURE OR SEARCH STATEMENT 11

?m:vi ref + :concerns : op.part

DOC.NUM : 677J0011

CASE.TIT : JUDGMENT OF THE COURT OF 28 JUNE 1977.

RICHARD HUGH PATRICK V MINISTRE DES AFFAIRES CULTURELLES
PRELIMINARY RULING REQUESTED BY THE TRIBUNAL ADMINISTRATIF
PARIS.

CASE 11-77.

PUB.REF : REPORTS OF CASES 1977 PAGES 1199 TO 1207

CONCERNS : I 157E052

I 157E057-P1

I 157E054

OP.PART : ON THOSE GROUNDS,
THE COURT,

IN ANSWER TO THE QUESTION REFERRED TO IT BY THE TRIBUNAL
ADMINISTRATIF, PARIS, BY ORDER OF 3 JANUARY 1977 HEREBY
RULES : WITH EFFECT FROM 1 JANUARY 1973, A NATIONAL OF A
NEW MEMBER STATE WHO HOLDS A QUALIFICATION RECOGNIZED BY
THE COMPETENT AUTHORITIES OF THE MEMBER STATE OF
ESTABLISHMENT AS EQUIVALENT TO THE CERTIFICATE ISSUED AND
REQUIRED IN THAT STATE ENJOYS THE RIGHT TO BE ADMITTED TO
THE PROFESSION OF ARCHITECT AND TO PRACTISE IT UNDER THE
SAME CONDITIONS AS NATIONALS OF THE MEMBER STATE OF
ESTABLISHMENT WITHOUT BEING REQUIRED TO SATISFY ANY
ADDITIONAL CONDITIONS.

4. Find the references to the Irish act implementing Commission Directive 84/442/EEC of 26 July 1984.

PROCEDURE OR SEARCH STATEMENT 12

278410442irl

*** 12 *** POSTINGS: 1

PROCEDURE OR SEARCH STATEMENT 13

?m:vi afi + :nat.prov

DOC.NUM : 784L0442IRI.

TITLE : IRISH PROVISIONS ON :

84/442/EEC : COMMISSION DIRECTIVE OF 26 JULY 1984 FIXING
STANDARD RATES OF YIELD FOR CERTAIN INWARD PROCESSING
OPERATIONS AND LAYING DOWN CERTAIN RULES FOR THE
CALCULATION OF IMPORT DUTIES

OFFICIAL JOURNAL NO L 245 , 14/09/1984 PAGE 0001

AUTHOR : IRELAND

FORM : NATIONAL IMPLEMENTING PROVISION

TREATY : EUROPEAN ECONOMIC COMMUNITY

TYP.DOC : 7; NATIONAL PROVISIONS FOR IMPLEMENTING DIRECTIVES; 1984; L

SUB.MAT : APPROXIMATION OF LAWS : HARMONIZATION OF CUSTOMS LAW :
INWARD PROCESSING

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NAT.PROV : - 01. CUSTOMS AND EXCISE GENERAL ORDER 1984, SI NO 101
OF 1984

IV. THE DIRECTORY OF COMMUNITY LEGISLATION IN FORCE

The "Directory of Community legislation in force" is published annually by the Commission. It contains all Community legislation in force as of 1 January of a given year.

Documents are assigned in the directory to one of seventeen chapters, which in fact correspond rather accurately to the branches of activity of the Community as well as the internal organization of the Commission. These chapters (e.g. agriculture, external relations, competition) are subdivided. For example, under "external relations" we find "commercial policy", which is again subdivided into more specific topics, such as "anti-dumping measures".

Every legislative document introduced into the CELEX system receives a number based on the classification system described above. Furthermore, this number constitutes a "term" in the data bank and can be used as a means of interrogation.

The directory is in two separate volumes.

Volume I - an analytical index of each document containing the CELEX number, title, OJ publication reference and any amending acts.

Volume II - a chronological and an alphabetical index.

The directory is available in all the official languages of the Community and subscribers to the Official Journal receive it free of charge.

A N N E X 3

DOCUMENTS CONCERNING THE ACCESSION OF THE KINGDOM OF SPAIN AND THE PORTUGUESE REPUBLIC TO THE EUROPEAN COMMUNITIES, ACT CONCERNING THE CONDITIONS OF ACCESSION OF THE KINGDOM OF SPAIN AND THE PORTUGUESE REPUBLIC AND THE ADJUSTMENTS TO THE TREATIES, ANNEX I : LIST PROVIDED FOR IN ARTICLE 26 OF THE ACT OF ACCESSION.

REF.PUB: OFFICIAL JOURNAL NO L 302, 15.11.1985 p. 0242

XVII. MISCELLANEOUS

EEC Acts

Council Regulation No 1 of 15 April 1958 (OJ No 17, 6. 10. 1958, p. 385/58), as amended by:

- the 1972 Act of Accession (OJ No L 73, 27. 3. 1972, p. 14),
- the 1979 Act of Accession (OJ No L 291, 19. 11. 1979, p. 17).

Article 1 is replaced by the following:

'Article 1

The official languages and the working languages of the institutions of the Community shall be Danish, Dutch, English, French, German, Greek, Italian, Portuguese and Spanish.'

Article 4 is replaced by the following:

'Article 4

Regulations and other documents of general application shall be drafted in the nine official languages.'

Article 5 is replaced by the following:

'Article 5

The *Official Journal of the European Communities* shall be published in the nine official languages.'

Euratom Acts

Council Regulation No 1 of 15 April 1958 (OJ No 17, 6. 10. 1958, p. 401/58).

Article 1 is replaced by the following:

'Article 1

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Etude de faisabilité relative à la création
de la version grecque de la base CELEX

Juin 1985

Préambule et plan de l'étude

Pour la réalisation de cette étude concernant la diffusion de la base de données Celex en Grèce, nous avons pris contact avec de nombreux organismes locaux dont vous trouverez en annexe IV la liste, tant sur le plan technique que sur le plan juridique, ce qui nous a permis d'obtenir le maximum d'informations sur le marché possible de Celex et les conditions techniques de diffusion.

La mise en oeuvre de Celex dépendant en partie des conditions techniques et commerciales de diffusion, nous avons organisé l'étude sur le plan suivant :

I. Le marché :

- 1) Le marché des bases juridiques documentaires.
- 2) Le marché pour Celex.

II. Conditions de diffusion :

- 1) Les terminaux utilisés en Grèce.
- 2) Le réseau interne.
- 3) Le réseau d'accès à l'étranger.

III. Mise en oeuvre de CELEX :

- 1) Sous ensemble de caractères pouvant être utilisé.
- 2) Les approches possibles.
- 3) Implication sur les chaînes de traitement.

IV. Conclusion :

- Annexe I : format des bandes de l'office.
- Annexe II : recommandations de l'ECMA.
- Annexe III : le marché informatique en Grèce.
- Annexe IV : liste des organismes ou sociétés rencontrés.

I. Le marché :

Le marché des bases juridiques documentaires et de Celex s'insère dans le marché général de diffusion des bases de données en Grèce sur lequel nous avons obtenu les informations suivantes :

Il existe deux moyens de diffusion des bases de données en Grèce :

La mise à disposition d'un terminal à l'organisme ou à la société intéressée permettant l'accès aux différentes bases de données mondiales ou européennes suivantes :

- . Questel
- . Esairs
- . Datacentralen
- . Gcam (accords en cours)
- . EDP (en projet)
- . Cated

Cette solution est mise en oeuvre par la société Intersys, mais les résultats obtenus en taux de consultation sont peu significatifs, quel que soit l'intérêt de la base de données mise à disposition et quel que soit le type d'utilisateur.

Les causes de ce faible taux de consultation sont diverses :

- . les bases de données sont en général en Anglais ou en Français,
- . une spécialisation est nécessaire quand on consulte une base de données, ce qui limite la consultation des bases,
- . les coûts d'abonnement sont élevés.

L'autre moyen de diffusion est un service bureau qui interroge lui-même les bases de données et répercute l'information par écrit ou oralement vers les intéressés. Ce système semble actuellement fonctionner beaucoup mieux que le précédent.

I. 1) Les bases de données juridiques et documentaires :

I. 1.1) Ce qui existe :

Les bases de données suivantes existent à l'Université de Thessalonique sur matériel Univac :

- . les textes juridiques grecs concernant la jurisprudence,
- . la jurisprudence de droit international privé grec, informations recensées depuis l'apparition du code civil grec (1946) et comprenant actuellement 1.500 documents de 10.000 caractères en moyenne (sera étendu à 3.000 documents),
- . la bibliographie sur le droit européen (6.000 documents),
- . la jurisprudence grecque sur le droit européen comprenant 40 arrêtés actuellement, ce qui recouvre le secteur 8 en projet dans la base Celex,
- . les mesures nationales d'exécution du droit européen (législation, 150 unités), ce qui recouvre le secteur 7 de Celex en cours de mise en oeuvre,
- . le texte en grec du traité de Rome,
- . une base de données bibliographique sur l'informatique juridique (5.000 titres).

Ces bases de données sont actuellement consultées par les services du professeur Passias à l'Université de Thessalonique (depuis un micro-ordinateur comprenant une unité centrale, un écran-clavier et un lecteur de disquettes).

I. 1.2) Ce qui est en projet :

Il est en projet la mise en oeuvre des bases de données suivantes :

- . une base de données au Conseil d'Etat,
- . la mise en oeuvre et l'évolution sur mini ordinateur de la base de données existant à l'Université de Thessalonique pour le compte du Centre de Droit International et du Droit Européen qui a été créé à Thessalonique en liaison avec la Commission.

I. 2) Le marché pour Celex :

Nous avons recensé 230 clients potentiels pour Celex :

- . 25 Ministères dont en particulier le Ministère de la Justice,
- . les facultés de droit (Thessalonique, Athènes et Thrace),
- . les ambassades des pays européens,
- . le Parlement Grec,
- . le Conseil d'Etat,
- . l'aéropage (cour de cassation),
- . les barreaux d'avocats (58 en Grèce dont 10 à Thessalonique et 30 à Athènes),
- . les grands cabinets d'avocats (6 en Grèce),
- . les associations de notaires (7 en Grèce),
- . l'institut hellénique de droit international et de droit européen à Athènes,
- . le Centre de Droit International et de Droit Européen à Thessalonique,
- . une centaine de grandes entreprises pour leurs besoins d'importation et d'exportation.

D'une manière générale les notaires (2.255) et avocats (18.000) peuvent être des clients potentiels.

II. Conditions de diffusion :

1) Les terminaux utilisés en Grèce :

Le marché des terminaux informatiques est libre en Grèce et on retrouve pratiquement l'ensemble des terminaux utilisés en Europe et aux Etats-Unis.

Les types de terminaux suivants ont été cités par nos différents interlocuteurs :

| | GREC MODERNE | SECTEUR DOMINANT |
|-------------------|--------------|------------------|
| IBM | Oui | |
| Philips | | |
| Siemens | | |
| Nixdorf | | |
| Texas Instruments | | secteur bancaire |
| Bull | Oui | administration |
| Control Data | | |
| Perkin Elme | | |
| Goupil | Oui | |
| Azeltime | Oui | |
| Télévidéo | Oui | secteur privé |
| Leav Siegler | Oui | secteur privé |
| Beehive | Oui | secteur privé |
| Telic (vidéotex) | Oui | |

Il n'y a pas de normalisation en ce qui concerne le jeu de caractères Grecs, chaque constructeur ayant développé séparément son adaptation.

En particulier, les recommandations de la Commission des Communautés Economiques Européennes (norme ISO 646) ne sont pas appliquées pratiquement.

On notera que deux organismes étudient actuellement les moyens de normalisation des terminaux grecs.

- . L'ELOT, organisme de normalisation situé à Heracleion en Crète.
- . L'OTE, office des télécommunications helléniques qui étudie plus particulièrement la normalisation des terminaux Vidéotex grecs et les problèmes liés au réseau à mettre en oeuvre.

Par ailleurs, la décision de normalisation dépend directement de la présidence à Athènes.

En ce qui concerne l'adaptation des terminaux diffusés sur le marché aux caractères grecs, deux méthodes ont été utilisées.

- a) Certains terminaux ont été modifiés par substitution des caractères grecs (24 majuscules et 24 minuscules) aux caractères latins du code ascii et report des caractères latins expulsés à des emplacements de caractères spéciaux (choisis sans aucune normalisation).
- b) Les caractères majuscules latins ont été conservés et les caractères majuscules grecs ont remplacé les caractères minuscules latins mais là encore aucune normalisation n'a été adoptée pour la définition des emplacements exacts des caractères.

La méthode a) a été en général utilisée sur les gros matériels. La méthode b) a été en général utilisée sur les petits matériels.

Certains constructeurs ayant une grande gamme de matériels utilisent les 2 méthodes.

2) Le réseau interne :

Il n'existe pas de réseau interne à la Grèce. Un projet avait été envisagé entre la société Transpac et l'OTE mais celui-ci ne s'est pas concrétisé. L'OTE émet actuellement un appel d'offres international en consultant entre autres NORTHERN-TELECOM, ITT et SIEMENS.

Trois noeuds seraient installés, un à Athènes, un au Pyrée et un à Thessalonique.

3) Le réseau d'accès à l'extérieur :

Il existe un concentrateur à Athènes permettant l'accès au réseau international de Transpac et aux bases de données déjà citées qui sont en ligne sur ce réseau.

Le concentrateur d'Athènes a 20 accès et fonctionne avec un taux de fiabilité de 95 % environ. Il ne supporte pas la procédure X29 M (permettant le raccordement de terminaux vidéotex français).

III. Mise en oeuvre de Celex :

1) Sous ensemble de caractères pouvant être utilisé.

Il est possible de définir un sous ensemble de caractères utilisés sur l'ensemble des terminaux grecs et prévus dans la normalisation à implanter mais ce sous ensemble ne pourra être utilisé au niveau de la diffusion puisque les terminaux existants ont tous des codifications différentes selon le constructeur informatique et même selon le type de terminal pour certains constructeurs (cf page 6).

Ce sous ensemble de caractères est le suivant :

- . les caractères majuscules grecs,
- . les caractères majuscules latins,
- . les chiffres.

2) Les approches possibles.

Il y a plusieurs moyens d'envisager la mise en oeuvre de la base CELEX en grec moderne :

- . Utilisation d'une seule table de transcodage contenant des caractères grecs et des caractères latins. C'est la méthode employée actuellement sur les terminaux grecs existants. Cette méthode n'entraînera pas de grosse modification des chaînes CELEX mais obligera un choix d'un terminal pour la diffusion. Ce choix devra se faire à deux niveaux.
 - Choix de la méthode générale employée (on a vu page 7 que deux méthodes de codification étaient employées en Grèce), qui définira si on veut soit les caractères majuscules et minuscules grecs et les caractères majuscules latins, soit les caractères majuscules grecs et les caractères majuscules latins.
 - Une fois cette méthode choisie, choix d'un terminal particulier qui utilise cette méthode.
- . Utilisation d'une seule table de transcodage conforme aux normes de codage proposées par l'ECMA et l'E.L.O.T en Grèce.

L'inconvénient dans ce cas est que tous les caractères latins apparaissant sur les terminaux doivent être translittérés en grec, ce qui peut poser de nombreux problèmes dans la gestion de la base et aussi au niveau de l'interrogation pour tous les termes qui dans les textes grecs apparaissent en latin (noms de personnes étrangères à la Grèce, noms d'organismes ou de sociétés étrangères à la Grèce, sigles divers).

- Utilisation de deux tables de transcodage (table grecque et table latine) conformément aux normes de codage proposées par l'ECMA et l'ELOT en Grèce.

C'est sans doute la méthode la plus riche, mais elle nécessite des modifications relativement importantes dans les chaînes Celex, aussi bien par les chaînes de traitement en amont que pour les chaînes mistral.

11.

III. 3) Implication sur les chaînes de traitement CELEX :

Les chaînes CELEX permettent dans leur état actuel de créer, alimenter et mettre à jour des fichiers contenant des informations, dans n'importe quelle langue dans la mesure où elles utilisent le jeu de caractères latins.

Dans la mesure où on élimine la possibilité d'introduire dans les divers fichiers des informations translittérées de grec en latin (par exemple selon les principes préconisés par la norme FORMEX - cf. document du 1/10/84, pages 102 et 103), nous déterminerons la manière dont nous implémenterons dans les fichiers des informations codées en grec moderne.

On peut distinguer deux aspects dans les chaînes de traitement CELEX :

- . les chaînes "internes" utilisant des programmes que l'on pourra éventuellement modifier, et des fichiers dont la structure pourra être adaptée,
- . les chaînes utilisant le logiciel MISTRAL, pour lesquelles ni les programmes, ni la structure des fichiers ne pourront être modifiés.

III. 3.1) Chaînes "internes" :

Actuellement les chaînes CELEX en amont des traitements MISTRAL, traitent des fichiers dans lesquels les informations sont en plusieurs langues, que ce soit :

- . dans un même article (CØPARCHAMP, TAB.CLX, etc)
- . dans une suite d'articles (un document ARCHIVE).

Les informations à manipuler à ce niveau sur terminal seront donc dans les deux jeux de caractères latin-grec, les jeux complets de majuscules et minuscules n'étant à priori utilisés que dans le cas du fichier ARCHIVE.

On pourrait envisager, pour pallier ce problème, de déporter dans des fichiers spécifiques, les informations en caractères grecs, qui pourraient alors être traitées sur des terminaux spéciaux. Mais cela nécessiterait d'importantes modifications dans les programmes actuels.

Si l'on élimine cette possibilité, le problème qui se pose est le suivant : sous quelle forme stocker l'information multilingue dans les fichiers ? La codification des données qui doivent alimenter la base (chaîne analyse, chaîne textes) ne pose en effet pas de réel problème puisqu'il suffira dans tous les cas d'adapter les tables de transcodage à la codification des données en entrée. Cette remarque s'applique aussi au format FORMEX qui sera vraisemblablement celui des données en entrée dans les traitements futurs.

Autant l'interrogation de la base MISTRAL en grec peut justifier un codage spécifique de l'information dans les fichiers, codage qui serait fonction du type de terminal utilisé (dont les normes de codification restent à déterminer), autant il paraît difficile d'imposer une nouvelle codification des caractères dans les fichiers internes de CELEX, qui ont surtout une fonction de gestion, et ne sont accessibles que par un nombre limité d'utilisateurs. De plus, il n'est pas exclu que cette nouvelle codification soit incompatible avec certains programmes (le logiciel THELEM par exemple n'admet que le jeu standard de caractères latins).

La solution qui semble la moins coûteuse serait alors d'adopter pour les caractères grecs une codification interne aux fichiers CELEX, en faisant précéder et suivre chaque chaîne de caractères grecs d'un "code d'échappement", la chaîne de caractères étant elle-même codée en caractères latins.

Pour certains fichiers la présence de ces codes d'échappement ne serait même pas nécessaire, puisque la position même de la chaîne de caractères dans l'article spécifie qu'elle est grecque (CØPARCHAMP, TAB.CLX, INFOCLX). Il n'est pas par ailleurs certain que l'on disposerait dans ces fichiers de la place nécessaire pour introduire le ou les codes d'échappement et la chaîne de caractères elle-même.

III. 3.2) Chaînes MISTRAL :

On doit admettre qu'au contraire des chaînes internes de CELEX, et à moins d'adopter la solution de la translittération en caractères latins, les caractères grecs doivent pouvoir être restitués en grec sur certains types de terminaux. Ces terminaux devront être de plus, capables d'afficher au moins des caractères latins majuscules (des mots latins apparaissent couramment dans les textes grecs).

La façon dont seront codées les informations en entrée des chaînes MISTRAL (à l'issue des chaînes internes de CELEX), ne pose en elle-même pas de problème particulier. Il suffira en effet de les transcoder par programme dans le format adopté par la base MISTRAL.

En l'absence d'une norme sur le codage des caractères grecs, il est difficile d'estimer tous les problèmes qui risquent de se poser en ce qui concerne les fichiers et les programmes MISTRAL. On peut cependant dès à présent émettre la réserve suivante : il n'est pas certain que la codification adoptée, quelle qu'elle soit, soit entièrement compatible avec le logiciel MISTRAL. Celui-ci dans l'état actuel des choses se réserve en effet, certains codes pour sa gestion interne. De plus, si la norme adoptée fonctionnait sur le principe des "codes d'échappement", c'est à dire qu'une chaîne de caractères dans une certaine police est précédée, puis suivie, d'un ou plusieurs codes identifiant la police, un certain nombre de problèmes s'ajouterait, parmi lesquels on peut citer :

- . l'introduction de ces "codes d'échappement" dans les zones MISTRAL de longueur fixe (noms des champs, des domaines, etc.),
- . la qualification des descripteurs et leur traitement par les programmes MISTRAL (par exemple à l'intérieur d'un texte, il ne serait pas suffisant qu'une chaîne de caractères soit encadrée de "codes d'échappement", il faudrait que cet encadrement soit réalisé autour de chacun des descripteurs générés par MISTRAL à partir de la liste des séparateurs associée au champ).

A moins que ne soit réalisé par la BULL, un interface permettant de stocker les informations selon un codage compatible avec le logiciel actuel, et de les restituer en fonction du type de terminal utilisé, il paraît alors difficile pour l'instant de déterminer la façon dont on devra coder les informations dans la base grecque MISTRAL.

Si l'on admet le principe de la translittération en latin pour les chaînes internes de CELEX, on peut dire en conclusion que l'adaptation de ces chaînes aux données grecques pourrait être réalisée dès à présent. Par contre, le chargement de la base MISTRAL resterait conditionné par le choix de la norme de codification, et l'étude de ses répercutions sur les traitements.

IV. Conclusion :

La diffusion de Celex en Grèce nécessite soit le choix préalable d'un terminal et d'une imprimante puisque les terminaux existants sont tous différents soit l'attente d'une normalisation effective des terminaux grecs.

Si une solution passant par le choix préalable d'un terminal est retenue, le terminal choisi devra pouvoir être modifié facilement pour prendre en compte par la suite la normalisation en cours des terminaux en Grèce.

Nous pouvons recommander pour l'instant les types de terminaux suivants qui se rapprochent le plus de la normalisation ISO 646 qui risque d'être appliquée en Grèce :

- . terminal Integro fabriqué à partir du DKU7200 à BULL.
- . terminal Telic (Vidéotex).
- . imprimante Integro fabriquée à partir de matériel BULL.
- . imprimante laser qui permet une définition facile des caractères.

Cette liste n'est pas exhaustive car lors de notre étude, nous n'avons pas eu la possibilité matérielle de contacter tous les fournisseurs de terminaux en Grèce. Si la Commission le souhaite, nous pouvons approfondir ce problème en consultant les principaux fabricants informatiques dont toute la liste est remise en annexe III.

Indépendamment de tout cela, et bien que ce ne soit pas l'objet de notre étude, nous tenons à signaler qu'il serait sans doute intéressant d'étudier la possibilité de diffusion de la base Celex à partir du mini-ordinateur dont l'achat est envisagé par le Centre de Droit International et de Droit Européen situé à Thessalonique. Cette solution motivera certainement de nombreux organismes locaux à la consultation de Celex parallèlement à la consultation d'informations juridiques nationales ou internationales.

A N N E X E I

Format des bandes de l'office

30

1. DESCRIPTION DES BANDES REMISES PAR L'OFFICE DE PUBLICATION

Le fichier d'entrée est produit par l'Imprimerie Centrale. Les blocs sont de type variable bloqués à 4000 caractères. Chaque bloc comprend toujours deux zones, une fixe sur 92 caractères et une variable jusque 3908 caractères.

Il y a rupture de bloc chaque fois qu'il est nécessaire de modifier une information dans une des zones d'identification ou de définition du document, ou lorsque les 4000 positions d'un bloc sont remplies.

La numérotation des blocs débute par 000 et est séquentielle à l'intérieur d'un même document.

La lecture est faite par bloc (1 bloc = 1 enregistrement).

CARACTERISTIQUES D'UN BLOC DU FICHER D'ENTREE

| N° | ZONE | DESIGNATION | LONGUEUR | DESCRIPTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|------|-------------|-------------------------------|---|--------------|---|---|----------------|---|---|--|--|---|---|-------------------------------|--|--|--|--------------|---|---|--------|--|--|--|--|---|---|----------|--|--|--|--|---|---|-----------|--|--|--|--|---|---|-----------|--|--|--|--|---|---|----------|--|--|--|--------------|---|---|----------|--|--|--|--|---|---|---------|--|--|--|
| 1. | | BL | 4 | Longueur de bloc - Blocs de types "variables bloqués" maximum 4000 positions. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | | RL1 | 4 | Longueur de l'enregistrement réservé à l'identification du document - FIXE 80 positions. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | ISB | 3 | Indicateur de séquence des blocs. Initialisation de la séquence en début de chaque nouveau document (après la commande DS). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | JOREF | 6 | Référence du Journal Officiel <div style="margin-left: 40px;"> <table border="1" style="border-collapse: collapse;"> <tr> <td style="padding: 2px;">J</td> <td style="padding: 2px;">O</td> <td style="padding: 2px;">L</td> <td style="padding: 2px;">X</td> <td style="padding: 2px;">X</td> <td style="padding: 2px;">X</td> </tr> </table> <div style="margin-left: 20px;"> <p>_____ N° de parution</p> <p>_____ Série</p> <p>_____ Journal Officiel</p> </div> </div> | J | O | L | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| J | O | L | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | DATE | 6 | Date de publication du Journal Officiel <div style="margin-left: 40px;"> <table border="1" style="border-collapse: collapse;"> <tr> <td style="padding: 2px;">A</td> <td style="padding: 2px;">A</td> <td style="padding: 2px;">M</td> <td style="padding: 2px;">M</td> <td style="padding: 2px;">J</td> <td style="padding: 2px;">J</td> </tr> </table> <div style="margin-left: 20px;"> <p>_____ Jour</p> <p>_____ Mois</p> <p>_____ Année</p> </div> </div> | A | A | M | M | J | J | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | A | M | M | J | J | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | FOLIO | 4 | Numéro de page du Journal Officiel contenant le document (en tout ou en partie). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | LG | 2 | Langue de publication - Il s'agit de la langue de publication du Journal Officiel dans lequel le document figure. - Codification des langues NL : néerlandais EN : anglais IT : italien DA : danois FR : français GR : grec DE : allemand | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. | | VJDUC | 3 | Valeur juridique du document <div style="margin-left: 40px;"> <table border="1" style="border-collapse: collapse;"> <tr> <td style="padding: 2px;">Position 1 :</td> <td style="padding: 2px;">0</td> <td style="padding: 2px;">=</td> <td style="padding: 2px;">Texte original</td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">C</td> <td style="padding: 2px;">=</td> <td style="padding: 2px;">Rectificatif (Corrigendum)</td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;">Position 2 :</td> <td style="padding: 2px;">A</td> <td style="padding: 2px;">=</td> <td style="padding: 2px;">Accord</td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">D</td> <td style="padding: 2px;">=</td> <td style="padding: 2px;">Décision</td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">L</td> <td style="padding: 2px;">=</td> <td style="padding: 2px;">Directive</td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">R</td> <td style="padding: 2px;">=</td> <td style="padding: 2px;">Règlement</td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> <td style="padding: 2px;">=</td> <td style="padding: 2px;">Indéfini</td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;">Position 3 :</td> <td style="padding: 2px;">E</td> <td style="padding: 2px;">=</td> <td style="padding: 2px;">Ephémère</td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">D</td> <td style="padding: 2px;">=</td> <td style="padding: 2px;">Durable</td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> <td style="padding: 2px;"> </td> </tr> </table> </div> | Position 1 : | 0 | = | Texte original | | | | | C | = | Rectificatif (Corrigendum) | | | | Position 2 : | A | = | Accord | | | | | D | = | Décision | | | | | L | = | Directive | | | | | R | = | Règlement | | | | | X | = | Indéfini | | | | Position 3 : | E | = | Ephémère | | | | | D | = | Durable | | | |
| Position 1 : | 0 | = | Texte original | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | C | = | Rectificatif (Corrigendum) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Position 2 : | A | = | Accord | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | D | = | Décision | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | L | = | Directive | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | R | = | Règlement | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | = | Indéfini | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Position 3 : | E | = | Ephémère | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | D | = | Durable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

N° ZONE DESIGNATION LONGUEUR DESCRIPTION

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|--------|----|--|--|--|--|---|--|--|--|--|--|---|--|--|--|--|--|---|---|--|---|--|--|--|---|--|--|--|--|--|---|--|
| 9. | NUMDOC | 13 | Numéro du document | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | <table border="0" style="margin-left: 40px;"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td>1</td><td>2</td><td></td><td>3</td><td></td><td></td><td></td><td>4</td><td></td><td></td><td></td><td></td><td></td><td>5</td><td></td> </tr> </table> | | | | | | | | | | | | | | | | 1 | 2 | | 3 | | | | 4 | | | | | | 5 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | | 3 | | | | 4 | | | | | | 5 | | | | | | | | | | | | | | | | | | | | |
| | | | NO officiel du doc.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | Année de publ. A A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | NO interne imprimerie | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | Code imprimerie | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | Rubrique. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

1. Rubrique |1| ou |2| pour LT ou LTI.
2. C pour Imprimerie Centrale, Z pour Saarbrucker-Zeitung etc...
3. Numérotation propre à la série L du J.O. mais commune aux différentes rubriques, la distinction se faisant grâce au code I ou II de la rubrique.
4. Année (AA)
5. Il s'agit de la numérotation apparaissant dans le Journal Officiel comme référence à un document.

| | | | |
|-----|---------|----|---|
| 10. | TDOC | 1 | Type de document. Valeurs possibles : \|D\| s'il s'agit du document proprement dit (de base) \|A\| s'il s'agit d'une annexe. |
| 11. | NLOG | 1 | Niveau logique de l'information que contient le document Valeurs possibles : \|T\| = Titres \|C\| = Corrigendum \|N\| = Notes de bas de page. |
| 12. | NPHY | 1 | Présentation physique de l'information que contient le document. Valeurs possibles : \|X\| = Texte courant \|T\| = Tableau \|G\| = Graphique |
| 13. | NSA | 4 | Compteur de séquence utilisé pour l'élaboration du document à partir de plusieurs unités photocomposées. |
| 14. | REFEX | 4 | Numéro de référence extérieur (pour l'instant à blanc) en vue d'un développement ultérieur. |
| 15. | RESERVE | 28 | |

| N° ZONE | DESIGNATION | LONGUEUR | DESCRIPTION |
|---------|-------------|----------|--|
| 16. | RL2 | 4 | Longueur de l'enregistrement contenant les informations du document identifié. |
| 17. | DL | 4 | Longueur de la zone (18) comprenant la définition de la forme de l'information contenue dans la zone NO 19. |
| 18. | DFI | V* | Définition de la forme physique de l'information activée par DPHY = T (G et X feront ultérieurement aussi l'objet d'une définition: paramètres typographiques par exemple). |
| 19. | INF | V* | Cette zone contient les informations elles-mêmes. |
| | MAXIMUM | 4000 | |

*V = Variable

2. CODIFICATION DE L'INFORMATION

L'information contenue dans les bandes de l'Imprimerie Centrale peut être représentée par les éléments de 3 tableaux de codes :

- a) Code latin + code de commande
- b) Code grec
- c) Extension du code de commande.

Ces codes sont différents des codes EBCDIC ou ISO classiques utilisés dans les traitements informatiques et nécessitent donc une décodification.

3. DECODIFICATION DE L'INFORMATION

La décodification de l'information est faite caractère par caractère.

La partie fixe de l'enregistrement (zones 1 à 18) doit être décodifiée à partir du code latin.

La décodification de la partie variable doit commencer toujours avec le code latin, et ceci même lorsque le caractère d'échappement 'ESC' n'est pas exprimé de manière explicite.

Le retour à la décodification de départ se fera également de manière systématique après chaque 'DS' (commande de séparation de document).

4. DESCRIPTION DES TABLES DE DECODIFICATION (1)

4.1 TABLE DE DECODIFICATION POUR LE CODE LATIN

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|---------|-----------------------|
| Entrée | Sortie | | |
| 2/1 | 5A | ! | Point d'exclamation |
| 2/2 | 7F | " | Guillemet droit |
| 2/3 | | | (non utilisé) |
| 2/4 | | | (non utilisé) |
| 2/5 | 6C | % | Symbole pour cent |
| 2/6 | 50 | & | Perluète |
| 2/7 | 7D | ' | Apostrophe |
| 2/8 | 4D | (| Parenthèse gauche |
| 2/9 | 5D |) | Parenthèse droite |
| 2/A | 5C | * | Astérisque |
| 2/B | 4E | + | Symbole Plus |
| 2/C | 6B | , | Virgule |
| 2/D | 60 | - | Tiret |
| 2/E | 4B | . | Point |
| 2/F | 51 | / | Barre oblique |
| 3/0 | F0 | 0 | Chiffre 0 |
| 3/1 | F1 | 1 | Chiffre 1 |
| 3/2 | F2 | 2 | Chiffre 2 |
| 3/3 | F3 | 3 | Chiffre 3 |
| 3/4 | F4 | 4 | Chiffre 4 |
| 3/5 | F5 | 5 | Chiffre 5 |
| 3/6 | F6 | 6 | Chiffre 6 |
| 3/7 | F7 | 7 | Chiffre 7 |
| 3/8 | F8 | 8 | Chiffre 8 |
| 3/9 | F9 | 9 | Chiffre 9 |
| 3/A | FA | : | Deux points |
| 3/B | 5E | ; | Point virgule |
| 3/C | 4C | < | Signe plus petit que |
| 3/D | 7E | = | Signe égal |
| 3/E | 6E | > | Signe plus grand que |
| 3/F | 6F | ? | Point d'interrogation |

(1) Pour une information plus détaillée se référer à la publication format d'échange d'informations des supports électroniques (Office des Publications Officielles des Communautés Européennes).

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|---------|-----------------------------|
| Entrée | Sortie | | |
| 4/0 | 7C | | "à" commercial |
| 4/1 | C1 | A | A majuscule |
| 4/2 | C2 | B | B majuscule |
| 4/3 | C3 | C | C majuscule |
| 4/4 | C4 | D | D majuscule |
| 4/5 | C5 | E | E majuscule |
| 4/6 | C6 | F | F majuscule |
| 4/7 | C7 | G | G majuscule |
| 4/8 | C8 | H | H majuscule |
| 4/9 | C9 | I | I majuscule |
| 4/A | D1 | J | J majuscule |
| 4/B | D2 | K | K majuscule |
| 4/C | D3 | L | L majuscule |
| 4/D | D4 | M | M majuscule |
| 4/E | D5 | N | N majuscule |
| 4/F | D6 | O | O majuscule |
| 5/0 | D7 | P | P majuscule |
| 5/1 | D8 | Q | Q majuscule |
| 5/2 | D9 | R | R majuscule |
| 5/3 | E2 | S | S majuscule |
| 5/4 | E3 | T | T majuscule |
| 5/5 | E4 | U | U majuscule |
| 5/6 | E5 | V | V majuscule |
| 5/7 | E6 | W | W majuscule |
| 5/8 | E7 | Y | Y majuscule |
| 5/9 | E8 | X | X majuscule |
| 5/A | E9 | Z | Z majuscule |
| 5/B | | | Crochet gauche |
| 5/C | | | Barre oblique inversée |
| 5/D | | | Crochet droite |
| 5/E | | | Tête de flèche vers le haut |
| 5/F | 60 | | Tiret inférieur |

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|---------|-----------------------------------|
| Entrée | Sortie | | |
| 6/0 | | | Barre oblique supérieure inversée |
| 6/1 | 81 | a | a minuscule |
| 6/2 | 82 | b | b minuscule |
| 6/3 | 83 | c | c minuscule |
| 6/4 | 84 | d | d minuscule |
| 6/5 | 85 | e | e minuscule |
| 6/6 | 86 | f | f minuscule |
| 6/7 | 87 | g | g minuscule |
| 6/8 | 88 | h | h minuscule |
| 6/9 | 89 | i | i minuscule |
| 6/A | 91 | j | j minuscule |
| 6/B | 92 | k | k minuscule |
| 6/C | 93 | l | l minuscule |
| 6/D | 94 | m | m minuscule |
| 6/E | 95 | n | n minuscule |
| 6/F | 96 | o | o minuscule |
| 7/0 | 97 | p | p minuscule |
| 7/1 | 98 | q | q minuscule |
| 7/2 | 99 | r | r minuscule |
| 7/3 | A2 | s | s minuscule |
| 7/4 | A3 | t | t minuscule |
| 7/5 | A4 | u | u minuscule |
| 7/6 | A5 | v | v minuscule |
| 7/7 | A6 | w | w minuscule |
| 7/8 | A7 | x | x minuscule |
| 7/9 | A8 | y | y minuscule |
| 7/A | A9 | z | z minuscule |
| 7/B | | | Accolade gauche |
| 7/C | | | Barre verticale |
| 7/D | | | Accolade droite |
| 7/E | | | Tiret supérieur |
| 7/F | | | (non utilisée) |

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|---------|--|
| Entrée | Sortie | | |
| 10/0 | | | (non utilisé) |
| 10/1 | | | Point d'exclamat. inversé |
| 10/2 | | | Symbole de cent |
| 10/3 | | | Symbole de la livre |
| 10/4 | 5B | \$ | Symbole du dollar |
| 10/5 | | | Symbole du yen |
| 10/6 | 7B | | Signe numéro |
| 10/7 | | | Signe paragraphe |
| 10/8 | | | Symbole monétaire internat. |
| 10/9 | | | Guillemet simple gauche |
| 10/A | | | Guillemet double gauche |
| 10/B | 7F | | Guillemet anguleux gauche |
| 10/C | | | Flèche vers le gauche |
| 10/D | | | Flèche vers le haut |
| 10/E | | | Flèche vers la droite |
| 10/F | | | Flèche vers le bas |
| 11/0 | | | Signe degré |
| 11/1 | | | Signe plus ou moins |
| 11/2 | | | Exposant 2 |
| 11/3 | | | Exposant 3 |
| 11/4 | | | Signe multiplié par |
| 11/5 | | | Signe micro |
| 11/6 | | | Signe alinéa à faire ou appel de note (en anglais) |
| 11/7 | 4B | . | Point médian |
| 11/8 | | | Signe divisé par |
| 11/9 | 7D | , | Guillemet simple droit |
| 11/A | 7F | ,, | Guillemet double droit |
| 11/B | 7F | | Guillemet anguleux droit |
| 11/C | | | Fraction un quart |
| 11/D | | | Fraction un demi |
| 11/E | | | Fraction trois quarts |
| 11/F | | | Point d'interrogation inversé gauche. |

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|---------|--------------------------|
| Entrée | Sortie | | |
| 12/0 | | | (non utilisé) |
| 12/1 | | | Accent grave |
| 12/2 | | | Accent aigu |
| 12/3 | | | Accent circonflexe |
| 12/4 | | | Tilde |
| 12/5 | | | Signe voyelle longue |
| 12/6 | | | Signe voyelle brève |
| 12/7 | | | Point |
| 12/8 | | | Tréma ou Umlaut |
| 12/9 | | | (non utilisé) |
| 12/A | | | Rond |
| 12/B | | | Cédille ou sédila |
| 12/C | 60 | | Filet sans espacement |
| 12/D | 7F | | Double accent aigu |
| 12/E | | | Ogonek |
| 12/F | | | Accent circonfl. inv. |
| 13/0 | 60 | | Barre horizontale |
| 13/1 | | | Exposant 1 |
| 13/2 | | | Registered |
| 13/3 | | | Copyright |
| 13/4 | | | Trade Mark |
| 13/5 | | | |
| 13/6 | | | (non utilisé) |
| 13/7 | | | (non utilisé) |
| 13/8 | | | (non utilisé) |
| 13/9 | | | (non utilisé) |
| 13/A | | | (non utilisé) |
| 13/B | | | (non utilisé) |
| 13/C | | | Fraction un huitième |
| 13/D | | | Fraction trois huitièmes |
| 13/E | | | Fraction cinq huitièmes |
| 13/F | | | Fraction sept huitièmes |

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|----------------|-------------------------------|
| Entrée | Sortie | | |
| 14/0 | | | Signe ohm |
| 14/1 | C1C5 | | Ligature AE majuscule |
| 14/2 | | D | D majuscule barré |
| 14/3 | | | Indicateur barré |
| 14/4 | | H | H majuscule barré |
| 14/5 | | | (non utilisé) |
| 14/6 | C9D1 | IJ | Ligature IJ majuscule |
| 14/7 | | L [*] | L majuscule avec point médian |
| 14/8 | | L | L majuscule barré |
| 14/9 | D685 | Ø | O maj. barré en oblique |
| 14/A | D685 | OE | Ligature OE majuscule |
| 14/B | | | Indicature ordinal majuscule |
| 14/C | | I | I majuscule islandais |
| 14/D | | | T majuscule barré |
| 14/E | | | majuscule lapon |
| 14/F | | 'n | n minuscule avec apostrophe |
| 15/0 | | k | k minuscule groenlandais |
| 15/1 | 8185 | ae | Ligature ae minuscule |
| 15/2 | | | d minuscule barré |
| 15/3 | | | minuscule islandais |
| 15/4 | | | h minuscule barré |
| 15/5 | | i | i minuscule sans point |
| 15/6 | 8991 | ij | Ligature ij minuscule |
| 15/7 | | l [*] | l minuscule avec pt médian |
| 15/8 | | l | l minuscule barré |
| 15/9 | 9685 | ø | o minuscule bar. en oblique |
| 15/A | 9685 | oe | Ligature oe minuscule |
| 15/B | A2A2 | | s dur minuscule allemand |
| 15/C | | P | o minuscule islandais |
| 15/D | | | t minuscule barré |
| 15/E | | | minuscule barré |
| 15/F | | | (non utilisé) |

4.2 TABLE DE DECODIFICATION POUR LE CODE DE COMMANDE

| COMMANDE | CODE | T R A I T E M E N T |
|----------|------|--|
| EX1 | 20 | Séparateur de mot |
| EX2 | 0A | Séparateur de paragraphe |
| EX3 | 0D | Séparateur de paragraphe |
| EX4 | 88 | Séparateur de page |
| EX5 | 89 | Séparateur de document |
| EX6 | 1B | Code d'échappement (ESC) |
| EXA | 28 | Indique dans quel code doit continuer le traitement. |
| EXA | 29 | id |
| EXA | 2A | id |
| EXB | 30 | id |
| EXB | 40 | id |
| EXC | 58 | id |
| ECD | 32 | id |

| SUITE DES CODES DE COMMANDE | T R A I T E M E N T |
|-----------------------------|---------------------|
| EX6 EXA EXB | Code Latin |
| EX6 EXA EXC | Code Grec |
| EX6 EXA EXD | Code Mathématique |

4.3 TABLE DE DECODIFICATION POUR LE CODE GREC

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|---------|--------------------------------|
| Entrée | Sortie | | |
| 2/0 | | | (non utilisé) |
| 2/1 | | | Accent grave |
| 2/2 | | | Accent aigu |
| 2/3 | | | Accent grave/tréma |
| 2/4 | | | Accent circonflexe |
| 2/5 | | | Esprit doux |
| 2/6 | | | Esprit rude |
| 2/7 | | | Esprit doux/accent aigu |
| 2/8 | | | Esprit rude/accent aigu |
| 2/9 | | | Tréma |
| 2/10 | | | Iota souscrit |
| 2/11 | | | Esprit doux/accent grave |
| 2/12 | | | Esprit rude/accent grave |
| 2/13 | | | Accent circonflexe/esprit doux |
| 2/14 | | | Accent circonflexe/esprit rude |
| 2/15 | | | Accent aigu/tréma |
| 3/0 à 3/4 | | | (non utilisés) |
| 3/5 | | | Esprit doux |
| 3/6 | | | Esprit rude |
| 3/7 | | | Esprit doux/accent aigu |
| 3/8 | | | Esprit rude/accent aigu |
| 3/9 | | | (non utilisé) |
| 3/10 | | | (non utilisé) |
| 3/11 | | | Esprit doux/accent grave |
| 3/12 | | | Esprit rude/accent grave |
| 3/13 | | | Accent circonflexe/esprit doux |
| 3/14 | | | Accent circonflexe/esprit rude |
| 3/15 | | | (non utilisé) |
| 4/0 | | | (non utilisé) |
| 4/1 | | | Alpha majuscule |

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|---------|--------------------|
| Entrée | Sortie | | |
| 4/2 | | | Beta majuscule |
| 4/3 | | | Gamma majuscule |
| 4/4 | | | Delta majuscule |
| 4/5 | | | Epsilon majuscule |
| 4/6 | | | Zeta majuscule |
| 4/7 | | | Eta majuscule |
| 4/8 | | | Theta majuscule |
| 4/9 | | | Iota majuscule |
| 4/10 | | | Kappa majuscule |
| 4/11 | | | Lambda majuscule |
| 4/12 | | | Mu majuscule |
| 4/13 | | | Nu majuscule |
| 4/14 | | | Xi majuscule |
| 4/15 | | | Omicron majuscule |
| 5/0 | | | Pi majuscule |
| 5/1 | | | Rho majuscule |
| 5/2 | | | Sigma majuscule |
| 5/3 | | | Tau majuscule |
| 5/4 | | | Upsilon majuscule |
| 5/5 | | | Phi majuscule |
| 5/6 | | | Chi majuscule |
| 5/7 | | | Psi majuscule |
| 5/8 | | | Omega majuscule |
| 5/9 | | | |
| 5/10 | | | |
| 5/11 | | | |
| 5/12 | | | |
| 5/13 | | | |
| 5/14 | | | |
| 5/15 | | | |

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|---------|--------------------|
| Entrée | Sortie | | |
| 6/0 | | | |
| 6/1 | | | alpha miniscule |
| 6/2 | | | beta miniscule |
| 6/3 | | | gamma miniscule |
| 6/4 | | | delta miniscule |
| 6/5 | | | epsilon minuscule |
| 6/6 | | | zeta minuscule |
| 6/7 | | | eta minuscule |
| 6/8 | | | theta minuscule |
| 6/9 | | | iota minuscule |
| 6/10 | | | kappa minuscule |
| 6/11 | | | lambda minuscule |
| 6/12 | | | mu minuscule |
| 6/13 | | | nu minuscule |
| 6/14 | | | xi minuscule |
| 6/15 | | | omicron minuscule |
| 7/0 | | | pi minuscule |
| 7/1 | | | rho minuscule |
| 7/2 | | | sigma minuscule |
| 7/3 | | | tau minuscule |
| 7/4 | | | upsilon |
| 7/5 | | | phi minuscule |
| 7/6 | | | chi minuscule |
| 7/7 | | | psi minuscule |
| 7/8 | | | omega minuscule |
| 7/9 | | | sigma minuscule |
| 7/10 | | | digamma minuscule |
| 7/11 | | | koppa minuscule |
| 7/12 | | | sampi |
| 7/13 | | | stigma |
| 7/14 | | | |
| 7/15 | | | |

4.4 TABLE DE DECODIFICATION RAPIDE (APPAUVRISSEMENT)

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|---------|-----------------------|
| Entrée | Sortie | | |
| 2/1 | 5A | ! | Point d'exclamation |
| 2/2 | 7F | " | Guillemet droit |
| 2/3 | | | (non utilisé) |
| 2/4 | | | (non utilisé) |
| 2/5 | 6C | % | Symbole pour cent |
| 2/6 | 50 | & | Perluète |
| 2/7 | 7D | ' | Apostrophe |
| 2/8 | 4D | (| Parenthèse gauche |
| 2/9 | 5D |) | Parenthèse droite |
| 2/10 | | | |
| 2/11 | 4E | + | Symbole Plus |
| 2/12 | 6B | , | Virgule |
| 2/13 | 6D | - | Tiret |
| 2/14 | 4B | . | Point |
| 2/15 | 61 | / | Barre oblique |
| 3/0 | F0 | 0 | Chiffre 0 |
| 3/1 | F1 | 1 | Chiffre 1 |
| 3/2 | F2 | 2 | Chiffre 2 |
| 3/3 | F3 | 3 | Chiffre 3 |
| 3/4 | F4 | 4 | Chiffre 4 |
| 3/5 | F5 | 5 | Chiffre 5 |
| 3/6 | F6 | 6 | Chiffre 6 |
| 3/7 | F7 | 7 | Chiffre 7 |
| 3/8 | F8 | 8 | Chiffre 8 |
| 3/9 | F9 | 9 | Chiffre 9 |
| 3/10 | FA | : | Deux points |
| 3/11 | 5E | ; | Point virgule |
| 3/12 | 4C | < | Signe plus petit que |
| 3/13 | 7E | = | Signe égal |
| 3/14 | 6E | > | Signe plus grand que |
| 3/15 | 6F | ? | Point d'interrogation |

| POSITION DE CODE | | SYMBOLE | NOM OU DESCRIPTION |
|------------------|--------|---------|--------------------|
| Entrée | Sortie | | |
| 4/1 | C1 | A | A majuscule |
| 4/2 | C2 | B | B majuscule |
| 4/3 | C3 | C | C majuscule |
| 4/4 | C4 | D | D majuscule |
| 4/5 | C5 | E | E majuscule |
| 4/6 | C6 | F | F majuscule |
| 4/7 | C7 | G | G majuscule |
| 4/8 | C8 | H | H majuscule |
| 4/9 | C9 | I | I majuscule |
| 4/A | D1 | J | J majuscule |
| 4/B | D2 | K | K majuscule |
| 4/C | D3 | L | L majuscule |
| 4/D | D4 | M | M majuscule |
| 4/E | D5 | N | N majuscule |
| 4/F | D6 | O | O majuscule |
| 5/0 | D7 | P | P majuscule |
| 5/1 | D8 | Q | Q majuscule |
| 5/2 | D9 | R | R majuscule |
| 5/3 | E2 | S | S majuscule |
| 5/4 | E3 | T | T majuscule |
| 5/5 | E4 | U | U majuscule |
| 5/6 | E5 | V | V majuscule |
| 5/7 | E6 | W | W majuscule |
| 5/8 | E7 | X | X majuscule |
| 5/9 | E8 | Y | Y majuscule |
| 5/10 | E9 | Z | Z majuscule |

| POSITION DE CODE | | SYMBOLE | | NOM OU DESCRIPTION |
|------------------|--------|---------|--------|--------------------|
| Entrée | Sortie | Entrée | Sortie | |
| 6/1 | C1 | a | A | A majuscule |
| 6/2 | C2 | b | B | B majuscule |
| 6/3 | C3 | c | C | C majuscule |
| 6/4 | C4 | d | D | D majuscule |
| 6/5 | C5 | e | E | E majuscule |
| 6/6 | C6 | f | F | F majuscule |
| 6/7 | C7 | g | G | G majuscule |
| 6/8 | C8 | h | H | H majuscule |
| 6/9 | C9 | i | I | I majuscule |
| 6/10 | D1 | j | J | J majuscule |
| 6/11 | D2 | k | K | K majuscule |
| 6/12 | D3 | l | L | L majuscule |
| 6/13 | D4 | m | M | M majuscule |
| 6/14 | D5 | n | N | N majuscule |
| 6/15 | D6 | o | N | O majuscule |
| 7/0 | D7 | p | P | P majuscule |
| 7/1 | D8 | q | Q | Q majuscule |
| 7/2 | D9 | r | R | R majuscule |
| 7/3 | E2 | s | S | S majuscule |
| 7/4 | E3 | t | T | T majuscule |
| 7/5 | E4 | u | U | U majuscule |
| 7/6 | E5 | v | V | V majuscule |
| 7/7 | E6 | w | W | W majuscule |
| 7/8 | E7 | x | X | X majuscule |
| 7/9 | E8 | y | Y | Y majuscule |
| 7/10 | E9 | z | Z | Z majuscule |

A N N E X E I I

Recommandations de l'ECMA

→ DA

15

ECMA

EUROPEAN COMPUTER MANUFACTURERS ASSOCIATION

REGISTRATION AUTHORITY FOR ISO 2375



ECMA has been designated by ISO as the Registration Authority for the implementation of International Standard ISO 2375

The Director ELOT
Didotou 15
ATHENS 144
Greece

OUR REF.

He/mb

YOUR REF.

DATE

Oct. 9, 1984

in Greek;

| | |
|------------|------|
| ELOT | ΕΛΜΑ |
| 5854 | |
| 1984-10-17 | |

Dear Sir,

Application 88 for registration of a character set for the Greek language has been registered on July 1, 1984. The Final character allocated is: 6/10. Please find enclosed a copy of the corresponding sheets of the International Register.

Yours faithfully,

[Signature]
D. Hekimi
Secretary General

cc: Dr. Sideridis

TYPE: Graphic Character Set

REGISTRATION NUMBER : 83

DATE OF REGISTRATION: July 1.1984

| | | | |
|-----------------|----|---|---------------|
| ESCAPE SEQUENCE | G0 | : | ESC 2/8 6/10 |
| | G1 | : | ESC 2/9 6/10 |
| | G2 | : | ESC 2/11 6/10 |
| | G3 | : | ESC 2/12 6/10 |
| | C0 | : | - |
| | C1 | : | - |

NAME Greek Character Set for the Greek language

DESCRIPTION





A set of 91 characters derived from the IRV of ISO 646 in which the Latin alphabet is replaced by the Greek alphabet.

SPONSOR ELOT, Hellenic Organization for Standardization
Didotou 15
ATHENS 144 Greece

ORIGIN Public Administrative Sector

FIELD OF UTILISATION

Data Interchange using the Greek language

| | | | | | | | | |
|----|----|----|----|----|---|---|---|--|
| b. | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| b. | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| b. | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| b. | b. | b. | b. | | | | | |
| 0 | 0 | 0 | 0 | 0 | | | | 0 @ O ' o |
| 0 | 0 | 0 | 1 | 1 | | | | ! 1 A Π α π |
| 0 | 0 | 1 | 0 | 2 | | | | " 2 B P β ρ |
| 0 | 0 | 1 | 1 | 3 | | | | # 3 Γ Σ γ σ |
| 0 | 1 | 0 | 0 | 4 | | | | ¤ 4 Δ T δ τ |
| 0 | 1 | 0 | 1 | 5 | | | | % 5 E Υ ε υ |
| 0 | 1 | 1 | 0 | 6 | | | | & 6 Z Φ ζ φ |
| 0 | 1 | 1 | 1 | 7 | | | | ' 7 H  η s |
| 1 | 0 | 0 | 0 | 8 | | | | (8 Θ X ϑ χ |
| 1 | 0 | 0 | 1 | 9 | | | |) 9 I Ψ ι ψ |
| 1 | 0 | 1 | 0 | 10 | | | | * :  Ω  ω |
| 1 | 0 | 1 | 1 | 11 | | | | + ; K Γ κ { |
| 1 | 1 | 0 | 0 | 12 | | | | , < Λ \. λ \| |
| 1 | 1 | 0 | 1 | 13 | | | | - = M I μ } |
| 1 | 1 | 1 | 0 | 14 | | | | . > N ^ ν ~ |
| 1 | 1 | 1 | 1 | 15 | | | | / ? E _ ξ  |

Name

| | Name | Note |
|------|--------------------------|------|
| 2/1 | EXCLAMATION MARK | |
| 2/2 | QUOTATION MARK | |
| 2/3 | NUMBER SIGN | |
| 2/4 | CURRENCY SIGN | |
| 2/5 | PERCENT SIGN | |
| 2/6 | AMPERSAND | |
| 2/7 | APOSTROPHÉ; ACUTE ACCENT | |
| 2/8 | LEFT PARENTHESIS | |
| 2/9 | RIGHT PARENTHESIS | |
| 2/10 | ASTERISK | |
| 2/11 | PLUS SIGN | |
| 2/12 | COMMA, CEDILLA | |
| 2/13 | HYPHEN, MINUS SIGN | |
| 2/14 | FULL STOP | |
| 2/15 | SOLIDUS | |
| 3/0 | DIGIT ZERO | |
| 3/1 | DIGIT ONE | |
| 3/2 | DIGIT TWO | |
| 3/3 | DIGIT THREE | |
| 3/4 | DIGIT FOUR | |
| 3/5 | DIGIT FIVE | |
| 3/6 | DIGIT SIX | |
| 3/7 | DIGIT SEVEN | |
| 3/8 | DIGIT EIGHT | |
| 3/9 | DIGIT NINE | |
| 3/10 | COLON | |
| 3/11 | SEMI-COLON | |
| 3/12 | LESS-THAN SIGN | |
| 3/13 | EQUALS SIGN | |
| 3/14 | GREATER-THAN SIGN | |
| 3/15 | QUESTION MARK | |

| 3. | Name | Note |
|------|--|------|
| 4/0 | COMMERCIAL AT | |
| 4/1 | CAPITAL GREEK LETTER ALPHA | |
| 4/2 | CAPITAL GREEK LETTER BETA | |
| 4/3 | CAPITAL GREEK LETTER GAMMA | |
| 4/4 | CAPITAL GREEK LETTER DELTA | |
| 4/5 | CAPITAL GREEK LETTER EPSILON | |
| 4/6 | CAPITAL GREEK LETTER ZETA | |
| 4/7 | CAPITAL GREEK LETTER ETA | |
| 4/8 | CAPITAL GREEK LETTER THETA | |
| 4/9 | CAPITAL GREEK LETTER IOTA | |
| 4/10 | <i>(This position shall not be used)</i> | |
| 4/11 | CAPITAL GREEK LETTER KAPPA | |
| 4/12 | CAPITAL GREEK LETTER LAMDA | |
| 4/13 | CAPITAL GREEK LETTER MU | |
| 4/14 | CAPITAL GREEK LETTER NU | |
| 4/15 | CAPITAL GREEK LETTER XI | |
| 5/0 | CAPITAL GREEK LETTER OMICRON | |
| 5/1 | CAPITAL GREEK LETTER PI | |
| 5/2 | CAPITAL GREEK LETTER RHO | |
| 5/3 | CAPITAL GREEK LETTER SIGMA | |
| 5/4 | CAPITAL GREEK LETTER TAU | |
| 5/5 | CAPITAL GREEK LETTER UPSILON | |
| 5/6 | CAPITAL GREEK LETTER PHI | |
| 5/7 | <i>(This position shall not be used)</i> | |
| 5/8 | CAPITAL GREEK LETTER CHI | |
| 5/9 | CAPITAL GREEK LETTER PSI | |
| 5/10 | CAPITAL GREEK LETTER OMEGA | |
| 5/11 | LEFT SQUARE BRACKET | |
| 5/12 | REVERSE SOLIDUS | |
| 5/13 | RIGHT SQUARE BRACKET | |
| 5/14 | UPWARD ARROW HEAD, CIRCUMFLEX ACCENT | |
| 5/15 | UNDERLINE | |

| Pos. | Name | Note |
|------|--|------|
| 6/0 | GRAVE ACCENT | |
| 6/1 | SMALL GREEK LETTER ALPHA | |
| 6/2 | SMALL GREEK LETTER BETA | |
| 6/3 | SMALL GREEK LETTER GAMMA | |
| 6/4 | SMALL GREEK LETTER DELTA | |
| 6/5 | SMALL GREEK LETTER EPSILON | |
| 6/6 | SMALL GREEK LETTER ZETA | |
| 6/7 | SMALL GREEK LETTER ETA | |
| 6/8 | SMALL GREEK LETTER THETA | |
| 6/9 | SMALL GREEK LETTER IOTA | |
| 6/10 | <i>(This position shall not be used)</i> | |
| 6/11 | SMALL GREEK LETTER KAPPA | |
| 6/12 | SMALL GREEK LETTER LAMDA | |
| 6/13 | SMALL GREEK LETTER MU | |
| 6/14 | SMALL GREEK LETTER NU | |
| 6/15 | SMALL GREEK LETTER XI | |
| 7/0 | SMALL GREEK LETTER OMICRON | |
| 7/1 | SMALL GREEK LETTER PI | |
| 7/2 | SMALL GREEK LETTER RHO | |
| 7/3 | SMALL GREEK LETTER SIGMA | |
| 7/4 | SMALL GREEK LETTER TAU | |
| 7/5 | SMALL GREEK LETTER UPSILON | |
| 7/6 | SMALL GREEK LETTER PHI | |
| 7/7 | SMALL GREEK LETTER TERMINAL SIGMA | |
| 7/8 | SMALL GREEK LETTER CHI | |
| 7/9 | SMALL GREEK LETTER PSI | |
| 7/10 | SMALL GREEK LETTER OMEGA | |
| 7/11 | LEFT CURLY BRACKET | |
| 7/12 | VERTICAL LINE | |
| 7/13 | RIGHT CURLY BRACKET | |
| 7/14 | OVERLINE | |

A N N E X E III

Le marché informatique en Grèce

REPARTITION DU MARCHE DES ORDINATEURS EN GRECE

| Nom du constructeur | Part du Marché Grec (%) | Mode implantation en Grèce | Gamme ordinateurs | Nature clientèle |
|---------------------|-------------------------|----------------------------|----------------------|------------------|
| I.B.M. | 40 | succursale | Petit, Moyen, Grand, | privé, public |
| BULL | 10 | filiale | P., M., G., | privé, public |
| UNIVAC | 10 | agent | G., | public |
| CONTROL-DATA | 7 | filiale | G., | public |
| N. C. R. | 6,5 | agent | P., | privé |
| BURROUGHS | 4 | agent | P., | privé |
| PRIME | 3,7 | agent | P., M., | privé, public |
| WANG | 3 | agent | P., | privé |
| D E C | 2,8 | agent | P., M., | public, privé |

NOMBRE D'ORDINATEURS DEVANT ETRE INSTALLES
EN GRECE EN 1987

| Dimension des ordinateurs (coût en dollars américains) | | Nombre |
|---|-------|--------|
| ----- | | ----- |
| 60.000 | ..... | 2.200 |
| 180.000 | ..... | 200 |
| 500.000 | ..... | 100 |
| 1.500.000 | ..... | 50 |
| | | ----- |
| | | 2.550 |
| | | ===== |

Parc de 2.550 ordinateurs petits, moyens et gros (non compris les micro-ordinateurs).

Taux accroissement annuel : 14 ou 15 %

A N N E X E I V

Liste des organismes ou sociétés rencontrées

LISTE DES ORGANISMES OU SOCIETES RENCONTREES

| Nom de l'organisme | Personnes rencontrées | Fonction |
|---|-------------------------|--------------------------------------|
| Université de Thessalonique | Monsieur Passias | Professeur |
| Intelmatique Paris | Monsieur Vivier | Directeur Adjoint |
| Ambassade de France à Athènes | Monsieur Lorient | Délégué Commercial |
| Bureau de Normalisation Informatique de l'Inria | Monsieur Mallagardis | Directeur |
| Ministère de la recherche et de la technologie | Monsieur Rapakoulis | Secrétaire Général |
| Intelmatique Grèce | Monsieur Athanasiadis | Représentant local |
| Société Intersys | Monsieur Valois | Commercial |
| Ministère de la Justice en Grèce | Monsieur Assimakopoulos | Secrétaire Général |
| Cour de Justice du Pyrée | Monsieur Papalakis | |
| " " " | Madame Roussa | Présidente du Tribunal |
| " " " | Monsieur Maneitas | Conseiller auprès de la Cour d'Appel |
| Bull Grèce | Monsieur Samothrakis | Directeur |
| Société IEME | Monsieur Katsanos | Directeur |

ARTICLES ON THE MORPHOLOGY OF THE GREEK LANGUAGE

1. A. Passias. Problèmes liés à l'élaboration d'instruments linguistiques du projet informatique INNOMOS : synonymie et polysémie dans le langage juridique hellénique, Atti del 20 convegno sul tema "L'informatica giuridica al servizio del paese" Sessione I/11, Corte Suprema di Cassazione, Centro Elettronico di Documentazione, Roma, 1-3 giugno 1978 (see following table).
2. A. Passias. Linguistique et systèmes d'informatique juridique : introduction aux problèmes linguistiques grecs (projet INNOMOS), Actes du 6ème symposium sur l'informatique juridique en Europe CJ-IJ Symp. (82) 1. p. 6, Strasbourg 1982
3. A. PASSIAS - A. KOLETSOË. Le traitement de données numériques dans un milieu textuel intégral, naturel et non structuré : Quelques aspects des options prises par INNOMOS, 30 Congresso internazionale sul tema "L'informatica giuridica e la comunità nazionali ed internazionali", Corte Suprema di Cassazione, Centro Elettronico di Documentazione, Roma 9-14 maggio 1983.

vent être traités d'homographes, fait qui multiplie dans le système INNOMOS les problèmes imputables à la polysémie, étant donné le nombre très important des formes ainsi mutilées. Les exemples sont encore une fois légion:

| | | | |
|-----------|---|-------------|--------------------|
| ΑΛΛΑ | 1 | (ἄλλα) | (autres) |
| ΑΛΛΑ | 2 | (ἀλλά) | (mais) |
| ΑΛΛΟΥ | 1 | (ἄλλου) | (d'un autre) |
| ΑΛΛΟΥ | 2 | (ἄλλοῦ) | (ailleurs) |
| ΑΞΙΑ | 1 | (ἀξία) | (valeur) |
| ΑΞΙΑ | 2 | (ἄξια) | (digne) |
| ΒΑΤΟΣ | 1 | (βάτος) | (ronce) |
| ΒΑΤΟΣ | 2 | (βατός) | (accessible) |
| ΓΕΡΟΣ | 1 | (γέρος) | (vieux) |
| ΓΕΡΟΣ | 2 | (γερός) | (solide) |
| ΔΙΑΦΟΡΑ | 1 | (διαφορά) | (différence) |
| ΔΙΑΦΟΡΑ | 2 | (διάφορα) | (divers) |
| ΔΙΚΗ | 1 | (δύκη) | (le procès) |
| ΔΙΚΗ | 2 | (δική\|μου\|) | (mienne) |
| ΕΙΣ | 1 | (εἰς) | (à) |
| ΕΙΣ | 2 | (εἰς) | (un) |
| ΕΝ | 1 | (ἐν) | (à) |
| ΕΝ | 2 | (ἐν) | (un) |
| Η | 1 | (ἡ) | (ou) |
| Η | 2 | (ἡ) | (la) |
| Η | 3 | (ἡ) | (laquelle) |
| ΙΔΙΑ | 1 | (ἰδίᾳ) | (surtout) |
| ΙΔΙΑ | 2 | (ἴδια) | (la même) |
| ΚΕΦΑΛΑΙΟΝ | 1 | (κεφάλαιον) | (chapitre) |
| ΚΕΦΑΛΑΙΟΝ | 2 | (κεφαλαῖον) | (lettre majuscule) |
| ΜΟΝΟΣ | 1 | (μόνος) | (seule) |
| ΜΟΝΟΣ | 2 | (μονός) | (simple) |

- 17 -

| | | | |
|-------|---|---------|------------------------|
| NOMOS | 1 | (νόμος) | (loi) |
| NOMOS | 2 | (νομός) | (département régional) |
| ΞΑΝΘΗ | 1 | (Ξάνθη) | (Xanthi-ville de) |
| ΞΑΝΘΗ | 2 | (ξανθή) | (blonde) |
| ΒΕΡΑ | 1 | (βέρα) | (le bas-fond) |
| ΒΕΡΑ | 2 | (βερά) | (vein) |
| ΟΡΟΣ | 1 | (ὄρος) | (condition) |
| ΟΡΟΣ | 2 | (ὄρος) | (montagne) |
| ΟΡΟΣ | 3 | (ὀρός) | (sérum) |
| ΠΟΣ | 1 | (πόσο) | (combien) |
| ΠΟΣ | 2 | (ποσό) | (la somme) |
| ΠΟΤΕ | 1 | (πότε) | (quand) |
| ΠΟΤΕ | 2 | (ποτέ) | (jamais) |

4. La synonymie et la polysémie sont deux problèmes qui demeurent liés à tout système de traitement électronique de l'information juridique, utilisant comme base de travail des données structurées à partir d'un langage naturel ouvert.

Il s'agit en d'autres termes, de problèmes inhérents à l'essence même du langage naturel qui, par la richesse de ses formes, prête largement à l'ambiguïté.

Ces problèmes disparaissent donc complètement dans un système basé sur un langage conventionnel (par exemple un système à indexation par mots-clés invariables). Ils surgissent par contre dans leur totalité s'agissant d'un système basé sur un texte intégral.

Dans cette optique, le projet *INNOMOS* est par sa nature même chargé, comme d'ailleurs tout autre système à texte intégral, des contraintes inhérentes au langage naturel, qui dans ce cas est le langage hellénique.

Ces contraintes, par rapport à d'autres systèmes fonctionnant à l'intérieur d'une langue unique, sont sur le plan documentaire génératrices supplémentai-

H. Bernstein

ANNEX 6

81

COMMISSION OF THE EUROPEAN COMMUNITIES

DG XIII Telecommunications Information Industries and Innovation

Brussels, 30.09.86 GE/lm/-/N/30.9-VanRos

-2.00186 003457

NOTE for the attention of Mr. JANSEN VAN ROSENDAAL

SUBJECT : GREECE - EUROTRA and Community Databases Ref.: Letter of Gen. Secretariat of Research and Technology.

The attached letter from the General Secretariat of Research and Technology addressed to Mr. Audoux raises two issues, namely, the EUROTRA involvement in the project of the morphological analysis of the Greek language and that of a feasibility study concerning the transfer of Community databases to Greece.

Both issues have been the subject of discussions during a mission to Athens on March 1986, led by Mr. Audoux concerning standardisation matters. This mission has been a follow-up of the Mr. Carpentier's mission on Jan. 86.

In view of the Greek authorities' interest on the above issues and, hence, the need for a follow-up on our part I would like to solicit your assistance as follows in order to prepare a common reply to this letter :

- a) Can we assess the extent of EUROTRA involvement in the project of the morphological analysis of the Greek language in relation to the National Documentation Centre's proposal to undertake this type of analysis with Commission support ? b) Given the Commission's policy on the diffusion of data bases, could I have your views on the issue of conducting a feasibility study concerning their availability to local hosts in Greece ? DG IX/E will also be consulted on this matter as the availability of CELEX locally in Greece is regarded as an immediate step.

IX/E/4 Bases de données Le 1/10/86 N° 1391 P. Attr. ML / PEA Cl. P. Info. PS - cic

Christopher WILKINSON

- Copies to : Mr. M. Carpentier Mr. M. Audoux Mr. H. Bernstein Mrs. G. Efthymiopoulou

SYSTEMES DE RECHERCHE ET D'INFORMATION EN FRANÇAIS IX-E-186 03-10-1986 #1140 P. Attr. BS P. Inf. BC

MINISTRY OF INDUSTRY ENERGY AND TECHNOLOGY
GENERAL SECRETARIAT OF RESEARCH AND TECHNOLOGY

2, Ermou Str.,
10193 Athens, Greece

Tel. 32 48 918 — 32 51 313

Telex 214074 YEET QR/E/4 Bases de données

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| LE | 6/90/86 | N° | 1362 |
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| P. Info. | | | |

Athens, 15th September 1986

Mr. M. S. Audoux,
ITT Task Force, DG XIII,
COMMISSION OF THE EUROPEAN
COMMUNITIES,
Rue de la Loi 200,
B-1049 Brussels

2176

Dear Mr. Audoux,

I wish to bring to your attention two specific points which refer to the meeting on standardization held in Athens between 10th and 12th March 1986. (Please refer to the copy of the report enclosed with this letter).

1. In paragraph 2.3.1., it was mentioned that the issue of the EUROTRA involvement in the project of the morphological analysis of the Greek language should have been addressed by the end of May 1986. To this date, neither our department nor the National Documentation Centre have been informed about any progress relating to this issue.
2. In paragraph 2.3.2., the issue of a feasibility study for the transfer of Community databases to Greece was mentioned, but we have no news as yet on how you see this activity progressing in the future. Our view is that it would be beneficial for Greece, if an appointed team of experts from our department and other related organizations had the opportunity to work in collaboration with experts from your department, and then prepare a first version of the feasibility study as soon as possible.

I would be most interested to have your view on both these matters in due time.

Yours sincerely,

Dr. G.C. Pentzaropoulos
IT Division

| |
|---------------------------------|
| SYSTÈMES D'INFORMATION INTÉGRÉS |
| IX-E-4 LE 03-10-1986 N° A1/445 |
| P. Att. BS |
| P. Inf. <i>[Handwritten]</i> |

C.C. Prof. K.D. Papailiou,
Secretary General of Research and Technology

Dr. C.P. Skourlas
National Documentation Centre

397/13.2.86/5.000

| | | | | | |
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| TASK FORCE TECHNOLOGIES INFORMATION ET TELECOMMUNICATIONS | | | | | |
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IX.E.4/SII (86) D/
782

NOTE FOR THE ATTENTION OF MR. WILKINSON

Subject : GREECE-EUROTRA and Community Databases

Ref : a) Letter of Gen. Secretariat of Research and Technology
b) Your note GE/lm/-/N/30.9 - Van Ros/8457/XIII of 30.09.86

Referring to your note to Mr. Jansen Van Rosendaal (ref b) above) I would like to inform you on the following concerning point b).

1. In the context of the Commission's policy for the diffusion of databases applicable since 1.1.1986, the CELEX database is available in 3 languages (french, english, german) to external hosts for a very reasonable annual fee (250.000 BF per language for the full base + weekly updates).
Two more language versions (dutch and italian) will be available soon.
CELEX is also available to external hosts via gateway arrangements.
2. The greek version of CELEX that could be of interest for greek users is not yet available. A project is under way for creating that version but given the various problems encountered we cannot provide a final date for its completion.
3. Greek host organizations wanting to offer CELEX to their clients in the existing language versions can buy it from the Commission via the Office of Official Publications. One must bear in mind however that CELEX is a big and quite complex database and as far as we know greek hosts, if they exist, do not own computers big enough to handle it. Greece is also lacking a full X.25 network.

As a matter of record, may I point out that the creation of a greek CELEX will not only cover the need of greek hosts and clients, but will also permit a more complete morphological analysis of the greek language (point a) of your note). A certain number of theoretical studies on the morphology of the greek language exist already for some time now but a full morphological analysis cannot, in our opinion, be conducted without tests on a full-text (documentary) database.

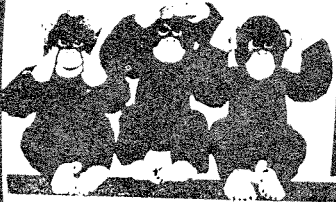
Mr. Alevantis, member of our service and project manager for the creation of a greek CELEX, can provide you with more information on both aspects.

H.H. BERNSTEIN

A handwritten signature in cursive script, appearing to read 'Bernstein', written in dark ink.

Copies : Messrs AUDOUX
BRACK (OPOCE)
DE BACKER
JANSEN VAN ROSENDAAL
Mrs EFTHYMIPOULOU

Wisdom also means:



- communicating,
- opening our eyes,
- listening

Open
to
progress

i Euronet-Diane
was only the first step

in its five-year programme the
Commission of the European Communities is opening the way
for the development of the European information market.

34

European Community programme for the development of the specialised information market

**New priority areas for the Commission's programme
to develop the specialised information market have been defined as follows:**

To promote development of the information market, the Commission has launched a five year programme (1984-88) supporting the enhancement of specialised information products and services.

Passed by the Council of Ministers on 27 November 1984, the 25 MECU programme will provide resources to support Commission activities in six priority areas: information for industry and research; electronic publishing and image databases; reducing regional discrepancies; materials databases; patent information; and biotechnology.

Emphasis on these six areas was agreed following advice given by the Committee for Information and Documentation in Science and Technology (CIDST), a body comprising experts delegated by the Member States.

Advised by the CIDST, Directorate-General Information Market and Innovation (DG XIII) of the Commission is responsible for implementing and managing the programme.

Three previous Commission Action Plans, completed between 1975 to 1983, have already achieved notable successes in promoting the information market. Amongst these, was Euronet-Diane, Europe's first packet-switched data communications network offering distance-independent tariffs. As a result, the supply and range of databases available online in Europe have increased. All kinds of specialised information are represented: scientific, technical, medical, legal, economic and so on.

However, a number of critical problems face the creation of a commercially strong European-wide information market. The need to ensure the

efficiency of European information providers faced by foreign competition; reducing barriers to market integration; improving the user friendliness of online services; promoting the introduction and acceptance of technological advances into electronic information systems; encouraging the implementation of European-wide technical standards etc.

The current programme aims to address these and others related issues within the context of the six priority areas. This means that, although each priority area has its own specific field of application, a number of general issues concerning information market development help to guide and evaluate projects and activities.

Encouraging the application of advanced technologies in the production of new information services is one of these general issues. Another is the need to promote public awareness, understanding and use of the services available in the EEC market. Both of these issues are key aspects of the programme's goal to catalyse development of the specialised information market by providing stimuli both to supply and demand.

Activities pursued within the 1984-88 Action Plan form an important component of the overall activities of the Commission to increase and improve the development of the information - and information technology markets within Europe. Thus, the Action Plan can be seen as a complement to the European research programme ESPRIT. It aims to introduce some of the latter's innovations into the services and products of the information industry.

The action plan priority areas

Information for Industry and Research

One of the main objectives is to improve the quality and relevance of information supply thereby attracting greater use by management and professionals. To this end actions in this priority area aim to:

- promote the supply of new services providing business, economic and trade data
- promote the role and effectiveness of information intermediaries as specialists serving industry and commerce's information needs
- improve access to and awareness of information services amongst small and medium-sized enterprises

Electronic Publishing and Image Databanks

Several initiatives are underway to promote electronic document publishing and delivery. Amongst these are:

DOCDEL, a document delivery programme supporting the experimental projects in electronic publishing

APOLLO, a project for document delivery using satellite distribution and implemented in co-operation with the European Space Agency.

These, and other, projects are assisting the creation of full text electronic information services - a significant advance from the bibliographic database of the 1970s. It is foreseen that further initiatives may support image databanks.

Reducing Regional Discrepancies

Positive discrimination in favour of less-developed regions is recognised as necessary to ensure that information supplied via the new technologies does not reinforce regional inequalities. Awareness and videotex projects are currently directed at this problem.

Materials Databanks

Initiatives are in progress to support co-ordination and harmonisation of decentralised high quality databases on materials. A priority is to increase the use of these valuable information sources within industrial research

Patent Information

A common approach is needed by national and international organisations responsible for patent information. New developments in this area include electronic full text storage and new methods of indexing and description

Biotechnology

The aim is to establish an information network between European research institutions to promote exchange of research results in biotechnology. Also, to create an inventory of projects, a terminology databank, information on location of culture collections, standards and a European newsletter.

European Information Market Development Group

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STANDARDS FOR THE GREEK CHARACTER SET

1986-09-19

Α.Δ.Τ. 681.3.04:003.341/.344

ΕΛΟΤ 928

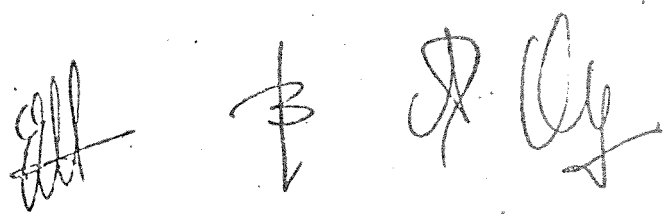
ΕΛΛΗΝΙΚΟ ΠΡΟΤΥΠΟ
HELLENIC STANDARD ELOT



ΕΠΕΞΕΡΓΑΣΙΑ ΠΛΗΡΟΦΟΡΙΩΝ - ΣΥΝΟΛΟ ΓΡΑΦΙΚΩΝ ΧΑΡΑΚΤΗΡΩΝ
8-ΨΗΦΙΑ ΠΑΡΑΣΤΑΣΗ ΕΛΛΗΝΙΚΟΥ ΚΑΙ ΛΑΤΙΝΙΚΟΥ ΑΛΦΑΒΗΤΟΥ

INFORMATION PROCESSING - GRAPHIC CHARACTER SET
8-BIT REPRESENTATION OF GREEK AND LATIN ALPHABET

ΚΑΔΑΤ Τυπολογίας



ΕΠΕΞΕΡΓΑΣΙΑ ΠΛΗΡΟΦΟΡΙΩΝ - ΣΥΝΟΛΟ ΓΡΑΦΙΚΩΝ ΧΑΡΑΚΤΗΡΩΝ - 8-ΨΗΦΙΑ ΠΑΡΑΣΤΑΣΗ ΕΛΛΗΝΙΚΟΥ ΚΑΙ ΛΑΤΙΝΙΚΟΥ ΑΛΦΑΒΗΤΟΥ

1 ΑΝΤΙΚΕΙΜΕΝΟ ΚΑΙ ΠΕΔΙΟ ΕΦΑΡΜΟΓΗΣ

Αυτό το Ελληνικό Πρότυπο καθορίζει ένα σύνολο 185 γραφικών χαρακτήρων και την κωδικοποιημένη παράσταση καθενός από αυτούς με τα 8 δυαδικά ψηφία ενός συνδυασμού δυαδικών ψηφίων.

Προορίζεται για χρήση σε εφαρμογές επεξεργασίας στοιχείων και κειμένων, που περιλαμβάνουν ελληνικούς και λατινικούς χαρακτήρες.

Μπορεί ακόμα να χρησιμοποιηθεί για ανταλλαγή πληροφοριών.

Το Πρότυπο αυτό είναι κατάλληλο για να χρησιμοποιηθεί σαν εκδοχή 8-ψηφιας κωδικοποίησης, σύμφωνα με όσα ορίζονται στα Διεθνή Πρότυπα ISO 2022 και ISO 4873.

2 ΣΥΜΜΟΡΦΩΣΗ

Ένα σύνολο γραφικών χαρακτήρων είναι σύμφωνο με το Πρότυπο αυτό αν:

- περιέχει όλους τους χαρακτήρες που περιλαμβάνονται σ' αυτό το πρότυπο.
- Οι κωδικοποιημένες παραστάσεις των χαρακτήρων του είναι αυτές που καθορίζονται στο πρότυπο αυτό και
- δεν περιέχει χαρακτήρες που δεν καθορίζονται σ' αυτό το Πρότυπο.

Ο ισχυρισμός ότι μια συσκευή ικανοποιεί αυτό το πρότυπο σημαίνει ότι η συσκευή υλοποιεί όλους τους χαρακτήρες του.

3 ΠΑΡΑΠΟΜΠΕΣ

ISO 646: Information Processing- ISO 7-bit Input/Output Coded Character Set.

ISO 2022: Information processing- ISO 7-bit coded character sets - Code extension techniques.

ISO 4873: Information processing- 8-bit coded character set for information interchange.

ISO 6429: Information processing- ISO 7-bit and 8-bit coded character sets- Additional control functions for character-imaging devices.

ISO 8859: Information processing- 8-bit single byte coded graphic character sets.

4 ΟΡΙΣΜΟΙ

Για τους σκοπούς αυτού του Προτύπου ισχύουν οι ακόλουθοι ορισμοί:

4.1 Συνδυασμός Δυαδικών Ψηφίων

Διαταγμένο σύνολο δυαδικών ψηφίων που παριστάνει ένα χαρακτήρα ή χρησιμοποιείται σαν μέρος της παράστασης ενός χαρακτήρα.

4.2 Χαρακτήρας

Μέλος συνόλου στοιχείων που χρησιμοποιούνται για την οργάνωση, τον έλεγχο ή την παράσταση δεδομένων.

4.3 Κωδικοποιημένο Σύνολο Χαρακτήρων

Σύνολο σαφών κανόνων που καθορίζει ένα σύνολο χαρακτήρων και μια αντιστοιχία ένα- προς-ένα μεταξύ κάθε χαρακτήρα του συνόλου και της κωδικοποιημένης παράστασής του.

4.4 Πίνακας Κωδικοποίησης

Πίνακας που δείχνει τους χαρακτήρες που αντιστοιχίζονται στους συνδυασμούς δυαδικών ψηφίων μιας κωδικοποίησης.

(Handwritten signatures and initials)

4.5 Γραφικός Χαρακτήρας

Χαρακτήρας - εκτός των λειτουργικών ελέγχου - που έχει μια οπτική παράσταση, συνήθως χειρόγραφη, τυπωμένη ή εμφανιζόμενη και έχει μια κωδικοποιημένη παράσταση που αποτελείται από μια ή περισσότερες ψηφιολέξεις.

ΣΗΜΕΙΩΣΗ - Στο Πρότυπο αυτό κάθε χαρακτήρας παριστάνεται με ένα μόνο συνδυασμό δυαδικών ψηφίων.

4.6 Γραφικό Σύμβολο

Οπτική παράσταση γραφικού χαρακτήρα.

4.7 Θέση

Το τμήμα ενός πίνακα κωδικοποίησης που καθορίζεται από τις συντεταχμένες στήλης και γραμμής.

5 ΣΥΜΒΟΛΙΣΜΟΣ, ΠΙΝΑΚΑΣ ΚΩΔΙΚΟΠΟΙΗΣΗΣ ΚΑΙ ΟΝΟΜΑΤΑ

5.1 Συμβολισμός

Τα δυαδικά ψηφία του συνδυασμού δυαδικών ψηφίων της 8-ψηφιας κωδικοποίησης αναγνωρίζονται με τις ταυτότητες b8, b7, b6, b5, b4, b3, b2 και b1, όπου b8 είναι το πιο σημαντικό ψηφίο και b1 το λιγότερο σημαντικό ψηφίο.

Οι συνδυασμοί δυαδικών ψηφίων μπορούν να ερμηνευτούν σαν παραστάσεις αριθμών από 0 ως 255 στο δυαδικό σύστημα με απόδοση των παρακάτω βαρών σε κάθε δυαδικό ψηφίο:

| Δυαδικό ψηφίο | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 |
|---------------|-----|----|----|----|----|----|----|----|
| Βάρος | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |

Με τη χρήση αυτών των βαρών, οι συνδυασμοί δυαδικών ψηφίων της 8-ψηφιας κωδικοποίησης ερμηνεύονται σαν παραστάσεις αριθμών στην περιοχή 0 ως 255.

Στο Πρότυπο αυτό, οι συνδυασμοί δυαδικών ψηφίων καθορίζονται με συμβολισμούς της μορφής x/y, όπου x και y είναι αριθμοί από 0 ως 15. Η αντιστοιχία των συμβολισμών της μορφής x/y και των συνδυασμών δυαδικών ψηφίων που αποτελούνται από τα δυαδικά ψηφία b8 μέχρι b1, είναι η ακόλουθη:

- x είναι αριθμός που παριστάνεται από τα b8, b7, b6 και b5 με βάρη 8,4,2 και 1 αντίστοιχα.
- y είναι αριθμός που παριστάνεται από τα b4, b3, b2 και b1 με βάρη 8,4,2 και 1 αντίστοιχα.

5.2 Παράσταση του Πίνακα Κωδικοποίησης

Ο πίνακας 8-ψηφιας κωδικοποίησης αποτελείται από 256 θέσεις κατανομημένες σε 16 στήλες και 16 γραμμές. Οι στήλες και οι γραμμές αριθμούνται από 0 ως 15.

Οι θέσεις του πίνακα καθορίζονται με συμβολισμούς της μορφής x/y, όπου x είναι ο αριθμός στήλης και y είναι ο αριθμός γραμμής.

Οι θέσεις του πίνακα βρίσκονται σε αντιστοιχία ένα-προς-ένα με τους συνδυασμούς δυαδικών ψηφίων της κωδικοποίησης. Ο συμβολισμός, της μορφής x/y, για τη θέση στον πίνακα κωδικοποίησης είναι ο ίδιος με αυτόν για τον αντίστοιχο συνδυασμό δυαδικών ψηφίων.

5.3 Ονόματα και Έννοιες

Το Πρότυπο αυτό εκχωρεί ένα τουλάχιστον όνομα σε κάθε χαρακτήρα. Ακόμα, καθορίζει ένα γραφικό σύμβολο για κάθε γραφικό χαρακτήρα. Ακολουθείται η σύμβαση: για την αναγραφή των ονομάτων των χαρακτήρων χρησιμοποιούνται μόνο κεφαλαία γράμματα, γραφικά σύμβολα πεζών (μικρών) γραμμάτων και παύλες.

Τα ονόματα επιλέχθηκαν έτσι ώστε να αποδίδουν τα συνηθισμένα ονόματα των αντιστοιχών συμβόλων. Πάντως εκτός από ΚΕΝΟ (SPACE, SP), ΔΙΑΣΤΗΜΑ ΧΩΡΙΣ ΔΙΑΚΟΠΗ (NO-BREAK SPACE, NBSP) και ΜΗ-ΣΤΑΘΕΡΟ ΕΝΩΤΙΚΟ (SOFT HYPHEN, SHY), το Πρότυπο αυτό δεν ορίζει και δεν περιορίζει τις

έννοιες των γραφικών χαρακτήρων, ούτε καθορίζει ή υποδεικνύει ένα συγκεκριμένο τρόπο γραφικής παράστασης των γραφικών χαρακτήρων.

5.3.1 ΚΕΝΟ (SPACE, SP)

Ο χαρακτήρας αυτός μπορεί να θεωρηθεί σα γραφικός χαρακτήρας, σα λειτουργία ελέγχου ή και τα δύο. Σαν γραφικός χαρακτήρας έχει οπτική παράσταση που είναι η απουσία οποιουδήποτε γραφικού συμβόλου.

5.3.2 ΔΙΑΣΤΗΜΑ ΧΩΡΙΣ ΔΙΑΚΟΠΗ (NO-BREAK SPACE, NBSP)

Γραφικός χαρακτήρας που η γραφική του παράσταση είναι η απουσία οποιουδήποτε γραφικού συμβόλου. Η παρουσία του χαρακτήρα αυτού δείχνει ένα σημείο όπου δεν πρέπει να γίνει διακοπή γραμμής από πράξεις που καθορίζουν τη μορφή κειμένου.

5.3.3 ΜΗ-ΣΤΑΘΕΡΟ ΕΝΩΤΙΚΟ (SOFT HYPHEN, SHY)

Γραφικός χαρακτήρας, που απεικονίζεται με γραφικό σύμβολο ταυτόσημο ή παρόμοιο με αυτό που παριστάνει την ΠΑΥΛΑ (HYPHEN), και που μπορεί να εισαχθεί ή να αφαιρεθεί από πράξεις που καθορίζουν την μορφή του κειμένου.

6 ΠΡΟΣΔΙΟΡΙΣΜΟΣ ΤΗΣ ΚΩΔΙΚΟΠΟΙΗΜΕΝΗΣ ΠΑΡΑΣΤΑΣΗΣ

Το Πρότυπο αυτό προδιαγράφει 185 χαρακτήρες που αντιστοιχίζονται με τους συνδυασμούς δυαδικών ψηφίων του Πίνακα Κωδικοποίησης. Στο Πρότυπο αυτό δεν υπάρχουν χαρακτήρες που δεν προωθούν την ενεργό θέση (non-advancing).

Το Πρότυπο αυτό δεν επιτρέπει τη χρήση των λειτουργιών ελέγχου, όπως του BACKSPACE ή του CARRIAGE RETURN για την κωδική παράσταση σύνθετων χαρακτήρων.




6.1 Χαρακτήρες του Συνόλου και κωδική τους Παράσταση

Το πρότυπο αυτό περιλαμβάνει 185 γραφικούς χαρακτήρες:

| Κωδικ. Παράσταση | Όνομα |
|------------------|----------------------------------|
| 2/00 | ΚΕΝΟ |
| 2/01 | ΘΑΥΜΑΣΤΙΚΟ |
| 2/02 | ΕΙΣΑΓΩΓΙΚΟ ΣΥΜΒΟΛΟ |
| 2/03 | ΣΥΜΒΟΛΟ ΑΡΙΘΜΟΥ |
| 2/04 | ΣΥΜΒΟΛΟ ΔΟΛΛΑΡΙΟΥ |
| 2/05 | ΣΥΜΒΟΛΟ ΕΠΙ ΤΟΙΣ ΕΚΑΤΟ |
| 2/06 | ΣΥΜΒΟΛΟ ΕΜΠΟΡΙΚΟΥ ΚΑΙ |
| 2/07 | ΑΠΟΣΤΡΟΦΟΣ |
| 2/08 | ΑΡΙΣΤΕΡΗ ΠΑΡΕΝΘΕΣΗ |
| 2/09 | ΔΕΞΙΑ ΠΑΡΕΝΘΕΣΗ |
| 2/10 | ΑΣΤΕΡΙΣΚΟΣ |
| 2/11 | ΣΥΝ |
| 2/12 | ΚΟΜΜΑ |
| 2/13 | ΠΛΗΝ, ΠΑΥΛΑ |
| 2/14 | ΤΕΛΕΙΑ |
| 2/15 | ΠΛΑΓΙΑ ΓΡΑΜΜΗ, ΣΥΜΒΟΛΟ ΔΙΑΙΡΕΣΗΣ |
| 3/00 | ΔΕΚΑΔΙΚΟ ΨΗΦΙΟ ΜΗΔΕΝ |
| 3/01 | ΔΕΚΑΔΙΚΟ ΨΗΦΙΟ ΕΝΑ |
| 3/02 | ΔΕΚΑΔΙΚΟ ΨΗΦΙΟ ΔΥΟ |
| 3/03 | ΔΕΚΑΔΙΚΟ ΨΗΦΙΟ ΤΡΙΑ |
| 3/04 | ΔΕΚΑΔΙΚΟ ΨΗΦΙΟ ΤΕΣΣΕΡΑ |
| 3/05 | ΔΕΚΑΔΙΚΟ ΨΗΦΙΟ ΠΕΝΤΕ |
| 3/06 | ΔΕΚΑΔΙΚΟ ΨΗΦΙΟ ΕΞΗ |
| 3/07 | ΔΕΚΑΔΙΚΟ ΨΗΦΙΟ ΕΠΤΑ |
| 3/08 | ΔΕΚΑΔΙΚΟ ΨΗΦΙΟ ΟΚΤΩ |
| 3/09 | ΔΕΚΑΔΙΚΟ ΨΗΦΙΟ ΕΝΝΕΑ |
| 3/10 | ΑΝΩ ΚΑΙ ΚΑΤΩ ΤΕΛΕΙΑ |
| 3/11 | ΕΡΩΤΗΜΑΤΙΚΟ |
| 3/12 | ΣΥΜΒΟΛΟ ΜΙΚΡΟΤΕΡΟ ΑΠΟ |
| 3/13 | ΣΥΜΒΟΛΟ ΙΣΟΝ |
| 3/14 | ΣΥΜΒΟΛΟ ΜΕΓΑΛΥΤΕΡΟ ΑΠΟ |
| 3/15 | ΛΑΤΙΝΙΚΟ ΕΡΩΤΗΜΑΤΙΚΟ |
| 4/00 | ΣΥΜΒΟΛΟ ΕΜΠΟΡΙΚΟΥ ΠΡΟΣ |
| 4/01 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ Α |
| 4/02 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ Β |
| 4/03 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ C |
| 4/04 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ D |
| 4/05 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ Ε |
| 4/06 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ F |
| 4/07 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ G |
| 4/08 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ Η |
| 4/09 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ Ι |
| 4/10 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ J |
| 4/11 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ K |
| 4/12 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ L |
| 4/13 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ M |
| 4/14 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ N |
| 4/15 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ O |
| 5/00 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ P |

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| 5/01 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ Q | 10/12 | ΣΥΜΒΟΛΟ ΛΟΓΙΚΗΣ ΑΡΝΗΣΗΣ |
| 5/02 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ R | 10/13 | ΜΗ-ΣΤΑΘΕΡΟ ΕΝΩΤΙΚΟ |
| 5/03 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ S | 10/15 | ΠΑΡΕΝΘΕΤΙΚΗ ΠΑΥΛΑ |
| 5/04 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ T | 11/00 | ΣΥΜΒΟΛΟ ΜΟΙΡΑΣ, ΣΥΜΒΟΛΟ ΒΑΘΜΟΥ ΚΕΛΣΙΟΥ |
| 5/05 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ U | 11/01 | ΣΥΜΒΟΛΟ ΣΥΝ-ΠΛΗΝ |
| 5/06 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ V | 11/02 | ΑΝΩ ΔΕΙΚΤΗΣ ΔΥΟ, ΣΥΜΒΟΛΟ ΔΕΥΤΕΡΗΣ ΔΥΝΑΜΗΣ |
| 5/07 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ W | 11/03 | ΑΝΩ ΔΕΙΚΤΗΣ ΤΡΙΑ, ΣΥΜΒΟΛΟ ΤΡΙΤΗΣ ΔΥΝΑΜΗΣ |
| 5/08 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ X | 11/04 | ΤΟΝΟΣ |
| 5/09 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ Y | 11/05 | ΔΙΑΛΥΤΙΚΑ ΜΕ ΤΟΝΟ |
| 5/10 | ΛΑΤΙΝΙΚΟ ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ Z | 11/06 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΑΛΦΑ ΜΕ ΤΟΝΟ |
| 5/11 | ΑΡΙΣΤΕΡΗ ΑΓΚΥΛΗ | 11/07 | ΑΝΩ ΤΕΛΕΙΑ |
| 5/12 | ΑΝΕΣΤΡΑΜΜΕΝΗ ΠΛΑΓΙΑ ΓΡΑΜΜΗ | 11/08 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΕΨΙΛΟΝ ΜΕ ΤΟΝΟ |
| 5/13 | ΔΕΞΙΑ ΑΓΚΥΛΗ | 11/09 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΗΤΑ ΜΕ ΤΟΝΟ |
| 5/14 | ΚΕΦΑΛΗ ΒΕΛΟΥΣ | 11/10 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΓΙΩΤΑ ΜΕ ΤΟΝΟ |
| 5/15 | ΥΠΟΓΡΑΜΜΙΣΗ | 11/11 | ΚΛΕΙΣΙΜΟ ΕΙΣΑΓΩΓΙΚΩΝ |
| 6/00 | ΒΑΡΕΙΑ | 11/12 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΟΜΙΚΡΟΝ ΜΕ ΤΟΝΟ |
| 6/01 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ a | 11/13 | ΚΛΑΣΜΑ ΕΝΑ ΔΕΥΤΕΡΟ |
| 6/02 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ b | 11/14 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΥΨΙΛΟΝ ΜΕ ΤΟΝΟ |
| 6/03 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ c | 11/15 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΩΜΕΓΑ ΜΕ ΤΟΝΟ |
| 6/04 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ d | 12/00 | ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΓΙΩΤΑ ΜΕ ΤΟΝΟ ΚΑΙ ΔΙΑΛΥΤΙΚΑ |
| 6/05 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ e | 12/01 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΑΛΦΑ |
| 6/06 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ f | 12/02 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΒΗΤΑ |
| 6/07 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ g | 12/03 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΓΑΜΜΑ |
| 6/08 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ h | 12/04 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΔΕΛΤΑ |
| 6/09 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ i | 12/05 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΕΨΙΛΟΝ |
| 6/10 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ j | 12/06 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΖΗΤΑ |
| 6/11 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ k | 12/07 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΗΤΑ |
| 6/12 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ l | 12/08 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΘΗΤΑ |
| 6/13 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ m | 12/09 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΓΙΩΤΑ |
| 6/14 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ n | 12/10 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΚΑΠΠΑ |
| 6/15 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ o | 12/11 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΛΑΜΔΑ |
| 7/00 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ p | 12/12 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΜΙ |
| 7/01 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ q | 12/13 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΝΙ |
| 7/02 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ r | 12/14 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΞΙ |
| 7/03 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ s | 12/15 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΟΜΙΚΡΟΝ |
| 7/04 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ t | 13/00 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΠΙ |
| 7/05 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ u | 13/01 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΡΟ |
| 7/06 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ v | 13/03 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΣΙΓΜΑ |
| 7/07 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ w | 13/04 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΤΑΥ |
| 7/08 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ x | 13/05 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΥΨΙΛΟΝ |
| 7/09 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ y | 13/06 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΦΙ |
| 7/10 | ΛΑΤΙΝΙΚΟ ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ z | 13/07 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΧΙ |
| 7/11 | ΑΡΙΣΤΕΡΟ ΑΓΚΙΣΤΡΟ | 13/08 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΨΙ |
| 7/12 | ΚΑΘΕΤΗ ΓΡΑΜΜΩΣΗ | 13/09 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΩΜΕΓΑ |
| 7/13 | ΔΕΞΙΟ ΑΓΚΙΣΤΡΟ | 13/10 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΓΙΩΤΑ ΜΕ ΔΙΑΛΥΤΙΚΑ |
| 7/14 | ΥΠΕΡΓΡΑΜΜΙΣΗ | 13/11 | ΚΕΦΑΛΑΙΟ ΓΡΑΜΜΑ ΥΨΙΛΟΝ ΜΕ ΔΙΑΛΥΤΙΚΑ |
| 10/00 | ΔΙΑΣΤΗΜΑ ΧΩΡΙΣ ΔΙΑΚΟΠΗ | 13/12 | ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΑΛΦΑ ΜΕ ΤΟΝΟ |
| 10/01 | ΑΡΙΣΤΕΡΟ ΕΙΣΑΓΩΓΙΚΟ ΑΠΛΟ ΚΟΜΜΑ | | |
| 10/02 | ΔΕΞΙΟ ΕΙΣΑΓΩΓΙΚΟ, ΑΠΛΟ ΚΟΜΜΑ | | |
| 10/03 | ΣΥΜΒΟΛΟ ΑΓΓΛΙΚΗΣ ΛΙΡΑΣ | | |
| 10/06 | ΔΙΑΚΕΚΟΜΜΕΝΗ ΚΑΘΕΤΗ ΓΡΑΜΜΩΣΗ | | |
| 10/07 | ΣΥΜΒΟΛΟ ΠΑΡΑΓΡΑΦΟΥ | | |
| 10/08 | ΔΙΑΛΥΤΙΚΑ | | |
| 10/09 | ΣΥΜΒΟΛΟ COPYRIGHT | | |
| 10/11 | ΑΝΟΙΓΜΑ ΕΙΣΑΓΩΓΙΚΩΝ | | |

13/13 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΕΨΙΛΟΝ ΜΕ
ΤΟΝΟ
13/14 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΗΤΑ ΜΕ
ΤΟΝΟ
13/15 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΓΙΩΤΑ ΜΕ
ΤΟΝΟ
14/00 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΥΨΙΛΟΝ ΜΕ
ΤΟΝΟ ΚΑΙ ΔΙΑΛΥΤΙΚΑ
14/01 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΑΛΦΑ
14/02 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΒΗΤΑ
14/03 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΓΑΜΜΑ
14/04 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΔΕΛΤΑ
14/05 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΕΨΙΛΟΝ
14/06 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΖΗΤΑ
14/07 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΗΤΑ
14/08 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΘΗΤΑ
14/09 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΓΙΩΤΑ
14/10 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΚΑΠΠΑ
14/11 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΛΑΜΔΑ
14/12 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΜΙ
14/13 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΝΙ
14/14 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΞΙ
14/15 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΟΜΙΚΡΟΝ
15/00 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΠΙ
15/01 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΡΟ
15/02 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΣΙΓΜΑ
ΤΕΛΙΚΟ

15/03 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΣΙΓΜΑ
15/04 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΤΑΥ
15/05 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΥΨΙΛΟΝ
15/06 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΦΙ
15/07 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΧΙ
15/08 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΨΙ
15/09 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΩΜΕΓΑ
15/10 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΓΙΩΤΑ ΜΕ
ΔΙΑΛΥΤΙΚΑ
15/11 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΥΨΙΛΟΝ ΜΕ
ΔΙΑΛΥΤΙΚΑ
15/12 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΟΜΙΚΡΟΝ ΜΕ
ΤΟΝΟ
15/13 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΥΨΙΛΟΝ ΜΕ
ΤΟΝΟ
15/14 ΠΕΖΟ (ΜΙΚΡΟ) ΓΡΑΜΜΑ ΩΜΕΓΑ ΜΕ
ΤΟΝΟ

6.2 Διαθέσιμες θέσεις

Οι θέσεις 10/04, 10/05, 10/10, 10/14, και 15/15 είναι διαθέσιμες για μελλοντική τυποποίηση.

6.3 Δεσμευμένη θέση

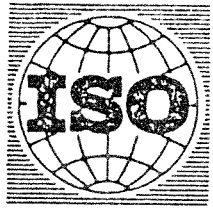
Η θέση 13/02 παραμένει δεσμευμένη

[Handwritten signatures and initials]

ΕΛΟΤ 928

Π Ι Ν Α Κ Α Σ Κ Ω Δ Ι Κ Ο Π Ο Ι Η Σ Η Σ

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|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|-----|----|----|----|----|
| | | | | b8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | | | b7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | | | b6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| | | | | b5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| b4 | b3 | b2 | b1 | | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| 0 | 0 | 0 | 0 | 00 | | | SP | 0 | @ | P | · | p | | | NBSF | ° | í | π | ü | ñ |
| 0 | 0 | 0 | 1 | 01 | | | ! | 1 | A | Q | a | q | | | ¢ | ± | A | P | α | ρ |
| 0 | 0 | 1 | 0 | 02 | | | ” | 2 | B | R | b | r | | | ’ | 2 | B | | β | ς |
| 0 | 0 | 1 | 1 | 03 | | | * | 3 | C | S | c | s | | | £ | 3 | Γ | Σ | χ | σ |
| 0 | 1 | 0 | 0 | 04 | | | \$ | 4 | D | T | d | t | | | | ’ | Δ | T | δ | τ |
| 0 | 1 | 0 | 1 | 05 | | | % | 5 | E | U | e | u | | | | ∞ | E | Υ | ε | υ |
| 0 | 1 | 1 | 0 | 06 | | | & | 6 | F | V | f | v | | | | 'A | Z | Φ | ζ | φ |
| 0 | 1 | 1 | 1 | 07 | | | ' | 7 | G | W | g | w | | | § | · | H | X | η | χ |
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| 1 | 0 | 0 | 1 | 09 | | |) | 9 | I | Y | i | y | | | © | 'H | I | Ω | ι | ω |
| 1 | 0 | 1 | 0 | 10 | | | * | : | J | Z | j | z | | | | 'I | K | ϊ | κ | ϊ |
| 1 | 0 | 1 | 1 | 11 | | | + | ; | K | I | k | { | | | « | » | Λ | ÿ | Α | Ü |
| 1 | 1 | 0 | 0 | 12 | | | , | < | L | \ | l | | | | └ | 'O | M | ά | μ | ό |
| 1 | 1 | 0 | 1 | 13 | | | - | = | M | I | m | } | | | SHY | 1/2 | N | έ | ν | ύ |
| 1 | 1 | 1 | 0 | 14 | | | . | > | N | ^ | n | ~ | | | | 'Y | Ξ | ή | ξ | ώ |
| 1 | 1 | 1 | 1 | 15 | | | / | ? | O | _ | o | | | | — | 'Ω | Ο | ί | ο | |



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"Jeux de caractères et codage de
l'information"

ISO/TC 97/SC 2 N **1687**

Date : September 1986

TITLE : TEXT FOR DIS 6937/7 - CODED CHARACTER SETS FOR TEXT
COMMUNICATION - PART 7 : GREEK GRAPHIC CHARACTERS

SOURCE : ISO/TC 97/SC 2/WG 4

PROJECT : 97.02.14.07

STATUS : FOR CONSIDERATION

REQUESTED ACTION : SUBMISSION FOR DIS LETTER BALLOT IS SUSPENDED PENDING
RESULTS OF SPECIAL WORKING GROUP MEETING ON
REORGANIZATION OF THE WORK OF SC 2

Text for DIS 6937/7: Introductory Note and History

The technical content of this text differs from that of the DP (97/2 N1591) in three respects. Firstly, the repertoire is changed: the two capital letters with double diacritics are removed and two diacritics per se (not 'non-spacing' characters) are added. Secondly, the codings of accented letters and the three forms of sigma are changed. Thirdly, graphic characters are not given IDs.

References to recent and previous polytonic Greek orthographies are corrected in editorial changes. The DP Annex is discarded. An annex corresponding to the second annex to DP 6937/8 is added: it had been omitted from DP 6937/7 by oversight.

The text for DP 6937/7 was agreed at the 18th TC97/SC2/WG4 meeting as reported on pp5-6 of 97/2 N1621; the Stockholm SC2 Plenary meeting resolved to circulate it as a DP for ballot and comment.

In the ballot Italy, the Netherlands and the UK approved and France, Switzerland and the USA disapproved (see 97/2 N1626). UK editorial comments are accommodated in the present text. It was impractical to accommodate either US comment. The French and Swiss comments could not be resolved by action on the part of SC2/WG4. Consideration of the comments is reported in SC2 document N 1684

Despite (or because of) the changes which have been made between the DP text and the present text, SC2/WG4 considers this text stable and suitable for registration as a DIS. Those changes were agreed in the 19th and 20th SC2/WG4 meetings in Crete and Athens where several Greek observers provided expert advice.

The character set in this text is a subset (with identical coding) of that in Registration Proposal 126: agreement on those two sets was reached at the same meeting in Athens. The set of Registration Proposal 126 is intended as the G1 set of an 8-bit code expected to be adopted as a national standard in Greece and which could be adopted as an extra part of DIS 8859.

Information processing - Coded character sets for text communication
PART 7: Greek graphic characters

0. Introduction

This International Standard specifies repertoires of graphic characters and control functions, and their coded representations, for use in text communication. It applies to the communication of text in the form of binary-coded representations of graphic characters and control functions, using

- a) public communication networks;
- b) private communication networks;
- c) interchange media such as magnetic tapes and discs.

It is applicable to the exchange of text at the coding interface.

Although, in general, text consists of characters and pictures, this International Standard applies only to text made up of characters.

This International Standard consists at present of eight parts as follows:

- ISO 6937/1, General Introduction.
- ISO 6937/2, Latin alphabetic and non-alphabetic graphic characters
- ISO 6937/3, Control functions for page-image format.
- ISO 6937/4, Control functions for formatted and formattable text¹⁾
- ISO 6937/5, Scientific and technical graphic characters¹⁾
- ISO 6937/6, Publishing and box drawing graphic characters¹⁾
- ISO 6937/7, Greek graphic characters¹⁾
- ISO 6937/8, Cyrillic graphic characters¹⁾

Other parts may be added later.

This part of ISO 6937 may be used in combination with one or both parts specifying control functions, and with one or more of the parts specifying graphic characters. However, it is necessary for it always to be used in combination with ISO 6937/1.

1) in preparation

1. Scope and field of application

This part of ISO 6937

- a) defines a set of graphic characters for the communication of text in the Monotoniko form of the Greek written language;
- b) specifies coded representations for the graphic characters.

It provides the capital and small letters of the modern Greek script and the limited set of letters with a stress mark used in the Monotoniko form of writing.

It is intended to be used as the G1 set in an 8-bit code, together with the primary set of ISO 6937/2 as the G0 set. This will give the letters of the Monotoniko form of written Greek and the Latin letters for the English language together with numerals and a limited range of symbols. It is intended to be used, further, with the supplementary set of ISO 6937/2 as a G2 set to provide a wider range of symbols including punctuation marks used in written Greek and the accented and other letters used in other European languages; this is described in the Annex to this part of ISO 6937.

This part of ISO 6937 does not aim to provide for the classical or modern forms of the Greek language written in the traditional manner with breathings and other diacritical signs.

The coding in this part of ISO 6937 is not related to that of ISO 5428 which caters for the traditional forms of written Greek.

This part of ISO 6937 applies to text as specified at the coding interface and communicated in the interchange domain. It may also apply to the coded character sets used internally in the local domain between the coding interface and the input-output devices of terminal equipment; however, it does not necessarily apply within the local domain, in which case, conversion is required adjacent to the local side of the coding interface.

2. References

ISO 2022, Information processing - ISO 7-bit and 8-bit coded character sets - Code extension techniques.

ISO 4873, Information processing - 8-bit code for information interchange - structure and rules for implementation.

ISO 5428, Greek alphabet coded character set for bibliographic information interchange.

3. Definitions

For the purposes of this part of ISO 6937, the definitions given in ISO 6937/1 apply.

4. Character set and coding

The set of characters defined in this part of ISO 6937 consists of the letters of the Greek alphabet together with the letter-plus-diacritic combinations and the 'tonos' and 'tonos plus dialitika' diacritical marks used in the Monitoniko orthography of the Greek language which was formally adopted in Greece in 1982.

All the graphic characters of this set are 'spacing', that is, their presentation causes an implicit forward movement of the active position as described in ISO 6937/3.

This set includes graphic characters which bear diacritical marks: each of those characters is coded as a single character and not as in ISO 6937/2 as a diacritic plus a letter. For example, in this part of ISO 6937, the Greek letter ó is coded as a single character, whereas in ISO 6937/2, the coding for the Latin letter á is that for the 'floating' acute accent followed by that for the letter a.

This character set is intended to be used as a G1 set in conjunction with the primary set of ISO 6937/2 as a G0 set. The preferred usage of those sets is as the G0 and G1 sets in an 8-bit code conforming to Levels 1, 2 or 3 of ISO 4873, together with, in a code conforming to Levels 2 or 3 of ISO 4873, the supplementary set of ISO 6937/2 used as a G2 set.

It should be noted that Greek text uses the quotation marks provided in the supplementary set of ISO 6937/2, and that the Greek semicolon ('ano teleia') is the 'turned period' or 'middle dot' provided in that supplementary set: in Greek text, the ; symbol is the question mark ('erotematiko').

Since the preferred usage of the character set specified in this part of ISO 6937 is as the G1 set in an 8-bit code, the code table and character list in this part of ISO 6937 show only 8-bit codings for the graphic characters.

This standard does not however prohibit the use of the character set of this part of ISO 6937 as a G2 or G3 set in an 8-bit code or as a G1, G2 or G3 set in a 7-bit code, using the code extension facilities specified in ISO 2022. In a 7-bit code, the character set specified in this part of ISO 6937 would be invoked into columns 2 to 7 of a 7-bit code table, rather than columns 10 to 15 of an 8-bit code table as presented here.

The escape sequences used to designate the set are:

- ESC 2/9 F²⁾: to designate the set as the G1 set;
- ESC 2/10 F²⁾: to designate the set as the G2 set;
- ESC 2/11 F²⁾: to designate the set as the G3 set.

2) Final bit combinations to be assigned when the set is registered.

5. The Code Table

The coding of the graphic characters of this part of ISO 6937 represented by bit combinations 10/00 to 15/15 of an 8-bit code.

| | | | | | b ₇ | b ₆ | b ₅ | b ₄ | b ₃ | b ₂ | b ₁ | b ₀ |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | | | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| | | | | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| | | | | | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| b ₇ | b ₆ | b ₅ | b ₄ | b ₃ | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | | | | | ι | Π | ϋ | π |
| 0 | 0 | 0 | 1 | 1 | | | | | Α | Ρ | α | ρ |
| 0 | 0 | 1 | 0 | 2 | | | | | Β | β | ς | |
| 0 | 0 | 1 | 1 | 3 | | | | | Γ | Σ | γ | σ |
| 0 | 1 | 0 | 0 | 4 | | | | | Δ | Τ | δ | τ |
| 0 | 1 | 0 | 1 | 5 | | | | ε | Ε | Υ | ε | υ |
| 0 | 1 | 1 | 0 | 6 | | | | | Α | Ζ | Φ | ς |
| 0 | 1 | 1 | 1 | 7 | | | | | Η | Χ | η | χ |
| 1 | 0 | 0 | 0 | 8 | | | | | Ε | Θ | Ψ | θ |
| 1 | 0 | 0 | 1 | 9 | | | | | Η | Ι | Ω | ι |
| 1 | 0 | 1 | 0 | 10 | | | | | Ι | Κ | Ϝ | κ |
| 1 | 0 | 1 | 1 | 11 | | | | | Λ | Ϟ | λ | ϋ |
| 1 | 1 | 0 | 0 | 12 | | | | | Ο | Μ | ά | μ |
| 1 | 1 | 0 | 1 | 13 | | | | | Ν | έ | ν | ύ |
| 1 | 1 | 1 | 0 | 14 | | | | | Υ | Ξ | ή | ξ |
| 1 | 1 | 1 | 1 | 15 | | | | | Ω | Ο | ι | ο |

6. Arrangement of the code table

This Standard does not specify a collation sequence for letters of the Greek alphabet.

The ordering of the small letters in positions 14/01 to 15/09 of the code table follows the ordering of the Greek alphabet, but with the final form of small sigma ('teliko sigma') inserted before the ordinary small sigma. The capital letters in positions 12/01 to 13/09 of the code table follow the same order, with a gap corresponding to that terminal small sigma.

Positions 10/01 to 11/03, 11/07, 11/11, 11/13 and 13/02 of the code table are reserved for future Standardization.

7. Graphic characters' names and coding

The following table lists the characters and their names and coding.

The letters are given their usual names, without any qualification such as 'GREEK LETTER...'. The 'tonos' and 'dialitika' diacritical marks, used in the Monitoniko Greek orthography are just called ACCENT and DIÆRESIS.

For compactness, where both small and capital forms of a letter exist, they are shown in a single line of the table: for example, μ and M are listed with the single name MU rather than separately as μ -SMALL MU and M-CAPITAL MU.

This part of ISO 6937 does not specify graphic symbols: symbols are shown for the purpose of illustration only.

| Graphic symbol | | Name | 8-bit coding | |
|----------------|---------|------------------------------|--------------|---------|
| Small | Capital | | Small | Capital |
| α | Α | ALPHA | 14/01 | 12/01 |
| ά | Ά | ALPHA WITH ACCENT | 13/12 | 11/06 |
| β | Β | BETA | 14/02 | 12/02 |
| γ | Γ | GAMMA | 14/03 | 12/03 |
| δ | Δ | DELTA | 14/04 | 12/04 |
| ε | Ε | EPSILON | 14/05 | 12/05 |
| έ | Έ | EPSILON WITH ACCENT | 13/13 | 11/08 |
| ζ | Ζ | ZETA | 14/06 | 12/06 |
| η | Η | ETA | 14/07 | 12/07 |
| ή | Ή | ETA WITH ACCENT | 13/14 | 11/09 |
| θ | Θ | THETA | 14/08 | 12/08 |
| ι | Ι | IOTA | 14/09 | 12/09 |
| ί | Ϊ | IOTA WITH ACCENT | 13/15 | 11/10 |
| ϊ | Ϊ | IOTA WITH DIÆRESIS | 15/10 | 13/10 |
| ϊ | Ϊ | IOTA WITH ACCENT+DIÆRESIS | 12/00 | |
| κ | Κ | KAPPA | 14/10 | 12/10 |
| λ | Λ | LAMBDA | 14/11 | 12/11 |
| μ | Μ | MU | 14/12 | 12/12 |
| ν | Ν | NU | 14/13 | 12/13 |
| ξ | Ξ | XI | 14/14 | 12/14 |
| ο | Ο | OMICRON | 14/15 | 12/15 |
| ό | Ό | OMICRON WITH ACCENT | 15/12 | 11/12 |
| π | Π | PI | 15/00 | 13/00 |
| ρ | Ρ | RHO | 15/01 | 13/01 |
| ς | | FINAL SMALL SIGMA | 15/02 | |
| σ | Σ | SIGMA | 15/03 | 13/03 |
| τ | Τ | TAU | 15/04 | 13/04 |
| υ | Υ | UPSILON | 15/05 | 13/05 |
| ύ | Ύ | UPSILON WITH ACCENT | 15/13 | 11/14 |
| ϋ | Ϛ | UPSILON WITH DIÆRESIS | 15/11 | 13/11 |
| ϋ | Ϛ | UPSILON WITH ACCENT+DIÆRESIS | 14/00 | |
| φ | Φ | PHI | 15/06 | 13/06 |
| χ | Χ | CHI | 15/07 | 13/07 |
| ψ | Ψ | PSI | 15/08 | 13/08 |
| ω | Ω | OMEGA | 15/09 | 13/09 |
| ώ | Ό | OMEGA WITH ACCENT | 15/14 | 11/15 |
| ´ | | ACCENT ('TONOS') | | 11/04 |
| ¨ | | ACCENT PLUS DIÆRESIS | | 11/05 |

Annex to '6937/7

(Not part of the Standard)

Coding of accented Latin letters and other characters in ISO 6937/2

The set of this part of ISO 6937 is intended to be used as a G1 set together with the supplementary set of ISO 6937/2 used as a G2 set. In an 8-bit code, a character of the G2 set may be invoked by the single-shift function SS2, and its coded representation may be two octets - SS2 (represented by bit combination 8/14) followed by a bit combination in the range 02/00 to 07/15.

While the character set in this part of ISO 6937 includes accented Greek letters coded as single characters which can be represented by one octet in an 8-bit code, ISO 6937/2 specifies that the coded representation of an accented Latin letter is that for a 'floating' diacritical mark followed by that for a basic Latin letter.

Using the primary and supplementary sets of ISO 6937/2 as the G0 and G2 sets in an 8-bit code, the representation of a Latin-alphabet accented letter may be three octets - SS2 followed by a bit combination in the range 04/01 to 04/15 representing a 'floating' accent then a bit combination in the range 04/1 to 05/10 or 06/1 to 07/10 representing a capital or small Latin-alphabet letter.

I S O
INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION

ISO/TC97/SC2
Character Sets and Information Coding
Secretariat: AFNOR

ISO/TC97/SC2 N 1670
September 1986

FINAL DRAFT FOR AN ECMA STANDARD FOR THE
8-BIT SINGLE-BYTE CODED LATIN/GREEK ALPHABET

NOTE

This text is distributed to SC2 for information. It has the support of WG-7 (see N 1669, item 7).
It is intended to submit it to ISO for fast-track processing as a part of ISO 8859.

ECMA/TC1/86/38
(supersedes 86/29)

E C M A

EUROPEAN COMPUTER MANUFACTURERS ASSOCIATION

FINAL DRAFT FOR

127

STANDARD ECMA-

8-BIT SINGLE BYTE
CODED GRAPHIC CHARACTER SETS

LATIN/GREEK ALPHABET

September 1986

BRIEF HISTORY

The adoption of ECMA-6 (ISO 646) as the agreed international 7-bit code for information interchange had led to the development of many national, international and application-oriented versions of this code which are in wide use today.

These versions have a number of limitations generally inherent to the size of the code:

- they do not provide all graphic characters which may be needed,
- for some characters, specially for accented letters, it is necessary to resort to BACKSPACE sequences, which creates problems when processing data containing such composite characters,
- interchange among different versions is practically limited to the 82 common graphic characters.

With the advent of 8-bit coding it was possible to increase the number of graphic characters. ISO 6937/2, for example, provides a character set covering the requirements of most languages based on the Latin alphabet. This character set, although well suited for text communication, is difficult to use for processing as some graphic characters are represented by one and others by two bit combinations.

Thus the need was recognized for coded graphic character sets, each of which:

- is the same for all users of a given area,
- provides single-byte coding of all graphic characters thus permitting easy processing,
- takes into account character sets used in the industry.

Since 1982 the urgency of the need for an 8-bit single-byte coded character set was recognized in ECMA as well as in ANSI/X3L2 and numerous working papers were exchanged between the two groups. In February 1984 ECMA TC1 submitted to ISO/TC97/SC2 a proposal for such a coded character set. At its meeting of April 1984 SC2 decided to submit to TC97 a proposal for a new item of work for this topic. Technical discussions during and after this meeting led TC1 to adopt the coding scheme proposed by X3L2. International Standard ISO 8859/1 is based on this joint ANSI/ECMA proposal. ECMA published the 1st edition of its corresponding Standard ECMA-94 in March 1985.

After this first publication, the work of ECMA TC1 on further coded graphic character sets has led to the following results:

- i) The present Standard for a Latin/Greek coded graphic character set. This set has been agreed by ELLOT, the Greek Standardization Institution. It will be submitted to ISO for processing under the fast-track procedure.

- ii) The second Edition of Standard ECMA-94, dated June 1986, comprising four coded graphic character sets for the Latin script, identified as Latin Alphabets No 1 to No 4. These alphabets have a number of characters in common, in particular those allocated to columns 02 to 07. Latin Alphabet No 2 has been submitted to ISO and is the subject of ISO 8859/2. Latin Alphabets No. 3 and No. 4 are processed as ISO DP 8859/3 and DP 8859/4.
- iii) A series of ECMA Standards for coded graphic character sets comprising those characters of the Latin Alphabets allocated to columns 02 to 07 and characters of another script for multiple-language applications. These ECMA Standards cover the Cyrillic and Arabic scripts. They have been submitted to ISO as DIS 8859/5 and DIS 8859/6, respectively, for fast-track processing as ISO standards.

Adopted as an ECMA Standard by the General Assembly of

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1. SCOPE

This ECMA Standard defines a set of 185 graphic characters identified as Latin/Greek Alphabet, and specifies the coded representation of each of these characters by means of a single 8-bit byte. None of these characters are "non-spacing".

The use of control functions, such as BACKSPACE or CARRIAGE RETURN for the coded representation of composite characters is prohibited by this Standard.

2. FIELD OF APPLICATION

This set of graphic characters, the Latin/Greek Alphabet, is intended for use in data and text processing applications and may also be used for information interchange.

This set is suited for multiple-language applications involving the Latin and the Greek scripts. It allows handling of data and text expressed in Greek.

This set of graphic characters is suitable for use in a version of an 8-bit code according to ECMA-35 or ECMA-43.

3. CONFORMANCE

A set of graphic characters is in conformance with this Standard if it comprises all graphic characters specified herein to the exclusion of any other and if their coded representations are those specified by this Standard.

4. REFERENCES

- ECMA-6 : 7-bit Input/Output Coded Character Set
- ECMA-35 : Code Extension Techniques
- ECMA-43 : 8-bit Coded Character Set - Structure and Rules
- ECMA-48 : Control Functions
- ECMA-94 : 8-bit Single Byte Coded Graphic Character Sets - Latin Alphabets No 1 to No 4.
- ECMA-113 : 8-bit Single Byte Coded Graphic Character Sets - Latin/Cyrillic Alphabet
- ECMA-114 : 8-bit Single Byte Coded Graphic Character Sets - Latin/Arabic Alphabet

5. DEFINITIONS

For the purpose of this Standard the following definitions apply:

5.1 Bit Combination; Byte

An ordered set of bits that represents a character or is used as a part of the representation of a character.

5.2 Character

A member of a set of elements used for the organization, control or representation of data.

5.3 Coded Character Set; Code

A set of unambiguous rules that establishes a character set and the one-to-one relationship between each character of the set and its coded representation.

5.4 Code Table

A table showing the character allocated to each bit combination in a code.

5.5 Graphic Character

A character, other than a control function, that has a visual representation normally handwritten, printed or displayed, and that has a coded representation consisting of one or more bit combinations.

Note 1

In this Standard a single bit combination is used to represent each character.

5.6 Graphic Symbol

A visual representation of a graphic character.

5.7 Position

That part of a code table identified by its column and row co-ordinates.

6. NOTATION, CODE TABLE AND NAMES

6.1 Notation

The bits of the bit combinations of the 8-bit code are identified by $b_8, b_7, b_6, b_5, b_4, b_3, b_2$ and b_1 , where b_8 is the highest-order, or most-significant bit and b_1 is the lowest-order, or least-significant bit.

The bit combinations may be interpreted to represent numbers in binary notation by attributing the following weights to the individual bits:

| | | | | | | | | |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Bit | b_8 | b_7 | b_6 | b_5 | b_4 | b_3 | b_2 | b_1 |
| Weight | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |

Using these weights, the bit combinations of the 8-bit code represent numbers in the range 0 to 255.

In this Standard, the bit combinations are identified by notations of the form xx/yy , where xx and yy are numbers in the range 00 to 15. The correspondence between the notations of the form xx/yy and the bit combinations consisting of the bits b_8 to b_1 , is as follows:

- 3 -

- xx is the number represented by b_8 , b_7 , b_6 and b_5 where these bits are given the weights 8, 4, 2 and 1 respectively;
- yy is the number represented by b_4 , b_3 , b_2 and b_1 where these bits are given the weights 8, 4, 2 and 1 respectively.

6.2 Layout of the Code Table

An 8-bit code table consists of 256 positions arranged in 16 columns and 16 rows. The columns and the rows are numbered 00 to 15.

The code table positions are identified by notations of the form xx/yy, where xx is the column number and yy is the row number.

The positions of the code table are in one-to-one correspondence with the bit combinations of the code. The notation of a code table position, of the form xx/yy, is the same as that of the corresponding bit combination.

5.3 Names and Meanings

This Standard assigns at least one name to each character. In addition, it specifies a graphic symbol for each graphic character. By convention only capital letters, the graphic symbols of small letters and hyphens are used for writing the names of the characters.

The names chosen to denote graphic characters are intended to reflect their customary meaning. However, except for SPACE (SP), NO-BREAK SPACE (NBSP) and SOFT HYPHEN (SHY), this Standard does not define and does not restrict the meanings of graphic characters. Neither does it specify a particular style or font design for imaging graphic characters.

6.3.1 SPACE (SP)

This character may be interpreted as a graphic character, a control character or as both. As a graphic character it has the visual representation consisting of the absence of a graphic symbol.

6.3.2 NO-BREAK SPACE (NBSP)

A graphic character the visual representation of which consists of the absence of a graphic symbol, for use when a line break is to be prevented in the text as presented.

6.3.3 SOFT HYPHEN (SHY)

A graphic character that is imaged by a graphic symbol identical with, or similar to, that representing HYPHEN, for use when a line break is permitted in the text as presented.

7. SPECIFICATION OF THE CODED CHARACTER SET

This Standard specifies 185 characters allocated to the bit combinations of the Code Table.

7.1 Characters of the Set and their Coded Representation

| Bit Combination | Name |
|-----------------|---------------------------------|
| 02/00 | SPACE |
| 02/01 | EXCLAMATION MARK |
| 02/02 | QUOTATION MARK |
| 02/03 | NUMBER SIGN |
| 02/04 | DOLLAR SIGN |
| 02/05 | PERCENT SIGN |
| 02/06 | AMPERSAND |
| 02/07 | APOSTROPHE |
| 02/08 | LEFT PARENTHESIS |
| 02/09 | RIGHT PARENTHESIS |
| 02/10 | ASTERISK |
| 02/11 | PLUS SIGN |
| 02/12 | COMMA |
| 02/13 | HYPHEN, MINUS SIGN |
| 02/14 | FULL STOP |
| 02/15 | SOLIDUS |
| 03/00 | DIGIT ZERO |
| 03/01 | DIGIT ONE |
| 03/02 | DIGIT TWO |
| 03/03 | DIGIT THREE |
| 03/04 | DIGIT FOUR |
| 03/05 | DIGIT FIVE |
| 03/06 | DIGIT SIX |
| 03/07 | DIGIT SEVEN |
| 03/08 | DIGIT EIGHT |
| 03/09 | DIGIT NINE |
| 03/10 | COLON |
| 03/11 | SEMICOLON (Greek question mark) |
| 03/12 | LESS-THAN SIGN |

| Bit Combination | Name |
|-----------------|----------------------|
| 03/13 | EQUALS SIGN |
| 03/14 | GREATER-THAN SIGN |
| 03/15 | QUESTION MARK |
| 04/00 | COMMERCIAL AT |
| 04/01 | CAPITAL LETTER A |
| 04/02 | CAPITAL LETTER B |
| 04/03 | CAPITAL LETTER C |
| 04/04 | CAPITAL LETTER D |
| 04/05 | CAPITAL LETTER E |
| 04/06 | CAPITAL LETTER F |
| 04/07 | CAPITAL LETTER G |
| 04/08 | CAPITAL LETTER H |
| 04/09 | CAPITAL LETTER I |
| 04/10 | CAPITAL LETTER J |
| 04/11 | CAPITAL LETTER K |
| 04/12 | CAPITAL LETTER L |
| 04/13 | CAPITAL LETTER M |
| 04/14 | CAPITAL LETTER N |
| 04/15 | CAPITAL LETTER O |
| 05/00 | CAPITAL LETTER P |
| 05/01 | CAPITAL LETTER Q |
| 05/02 | CAPITAL LETTER R |
| 05/03 | CAPITAL LETTER S |
| 05/04 | CAPITAL LETTER T |
| 05/05 | CAPITAL LETTER U |
| 05/06 | CAPITAL LETTER V |
| 05/07 | CAPITAL LETTER W |
| 05/08 | CAPITAL LETTER X |
| 05/09 | CAPITAL LETTER Y |
| 05/10 | CAPITAL LETTER Z |
| 05/11 | LEFT SQUARE BRACKET |
| 05/12 | REVERSE SOLIDUS |
| 05/13 | RIGHT SQUARE BRACKET |
| 05/14 | CIRCUMFLEX ACCENT |
| 05/15 | LOW LINE |
| 06/00 | GRAVE ACCENT |

| Bit Combination | Name |
|-----------------|---------------------------------|
| 06/01 | SMALL LETTER a |
| 06/02 | SMALL LETTER b |
| 06/03 | SMALL LETTER c |
| 06/04 | SMALL LETTER d |
| 06/05 | SMALL LETTER e |
| 06/06 | SMALL LETTER f |
| 06/07 | SMALL LETTER g |
| 06/08 | SMALL LETTER h |
| 06/09 | SMALL LETTER i |
| 06/10 | SMALL LETTER j |
| 06/11 | SMALL LETTER k |
| 06/12 | SMALL LETTER l |
| 06/13 | SMALL LETTER m |
| 06/14 | SMALL LETTER n |
| 06/15 | SMALL LETTER o |
| 07/00 | SMALL LETTER p |
| 07/01 | SMALL LETTER q |
| 07/02 | SMALL LETTER r |
| 07/03 | SMALL LETTER s |
| 07/04 | SMALL LETTER t |
| 07/05 | SMALL LETTER u |
| 07/06 | SMALL LETTER v |
| 07/07 | SMALL LETTER w |
| 07/08 | SMALL LETTER x |
| 07/09 | SMALL LETTER y |
| 07/10 | SMALL LETTER z |
| 07/11 | LEFT CURLY BRACKET |
| 07/12 | VERTICAL LINE |
| 07/13 | RIGHT CURLY BRACKET |
| 07/14 | TILDE |
| 10/00 | NO-BREAK SPACE |
| 10/01 | LEFT SINGLE QUOTATION MARK |
| 10/02 | RIGHT SINGLE QUOTATION MARK |
| 10/03 | POUND SIGN |
| 10/04 | This position shall not be used |
| 10/05 | This position shall not be used |

| Bit Combination | Name |
|-----------------|---|
| 10/06 | BROKEN BAR |
| 10/07 | PARAGRAPH SIGN |
| 10/08 | DIAERESIS (Dialytika) |
| 10/09 | COPYRIGHT SIGN |
| 10/10 | This position shall not be used |
| 10/11 | LEFT ANGLE QUOTATION MARK |
| 10/12 | NOT SIGN |
| 10/13 | SOFT HYPHEN |
| 10/14 | This position shall not be used |
| 10/15 | HORIZONTAL BAR |
| 11/00 | DEGREE SIGN |
| 11/01 | PLUS-MINUS SIGN |
| 11/02 | SUPERSCRIPIT TWO |
| 11/03 | SUPERSCRIPIT THREE |
| 11/04 | ACCENT (Tonos) |
| 11/05 | DIAERESIS AND ACCENT (Dialytika and Tonos) |
| 11/06 | CAPITAL GREEK LETTER ALPHA WITH ACCENT |
| 11/07 | MIDDLE DOT (Ano Teleia) |
| 11/08 | CAPITAL GREEK LETTER EPSILON WITH ACCENT |
| 11/09 | CAPITAL GREEK LETTER ETA WITH ACCENT |
| 11/10 | CAPITAL GREEK LETTER IOTA WITH ACCENT |
| 11/11 | RIGHT ANGLE QUOTATION MARK |
| 11/12 | CAPITAL GREEK LETTER OMICRON WITH ACCENT |
| 11/13 | VULGAR FRACTION ONE HALF |
| 11/14 | CAPITAL GREEK LETTER UPSILON WITH ACCENT |
| 11/15 | CAPITAL GREEK LETTER OMEGA WITH ACCENT |
| 12/00 | SMALL GREEK LETTER IOTA WITH DIAERESIS AND ACCENT |
| 12/01 | CAPITAL GREEK LETTER ALPHA |
| 12/02 | CAPITAL GREEK LETTER BETA |
| 12/03 | CAPITAL GREEK LETTER GAMMA |
| 12/04 | CAPITAL GREEK LETTER DELTA |
| 12/05 | CAPITAL GREEK LETTER EPSILON |
| 12/06 | CAPITAL GREEK LETTER ZETA |
| 12/07 | CAPITAL GREEK LETTER ETA |
| 12/08 | CAPITAL GREEK LETTER THETA |
| 12/09 | CAPITAL GREEK LETTER IOTA |

| Bit Combination | Name |
|-----------------|--|
| 12/10 | CAPITAL GREEK LETTER KAPPA |
| 12/11 | CAPITAL GREEK LETTER LAMDA |
| 12/12 | CAPITAL GREEK LETTER MU |
| 12/13 | CAPITAL GREEK LETTER NU |
| 12/14 | CAPITAL GREEK LETTER KSI. |
| 12/15 | CAPITAL GREEK LETTER OMICRON |
| 13/00 | CAPITAL GREEK LETTER PI |
| 13/01 | CAPITAL GREEK LETTER RHO |
| 13/02 | This position shall not be used |
| 13/03 | CAPITAL GREEK LETTER SIGMA |
| 13/04 | CAPITAL GREEK LETTER TAU |
| 13/05 | CAPITAL GREEK LETTER UPSILON |
| 13/06 | CAPITAL GREEK LETTER PHI |
| 13/07 | CAPITAL GREEK LETTER KHI |
| 13/08 | CAPITAL GREEK LETTER PSI |
| 13/09 | CAPITAL GREEK LETTER OMEGA |
| 13/10 | CAPITAL GREEK LETTER IOTA WITH DIAERESIS |
| 13/11 | CAPITAL GREEK LETTER UPSILON WITH DIAERESIS |
| 13/12 | SMALL GREEK LETTER ALPHA WITH ACCENT |
| 13/13 | SMALL GREEK LETTER EPSILON WITH ACCENT |
| 13/14 | SMALL GREEK LETTER ETA WITH ACCENT |
| 13/15 | SMALL GREEK LETTER IOTA WITH ACCENT |
| 14/00 | SMALL GREEK LETTER UPSILON WITH DIAERESIS AND ACCENT |
| 14/01 | SMALL GREEK LETTER ALPHA |
| 14/02 | SMALL GREEK LETTER BETA |
| 14/03 | SMALL GREEK LETTER GAMMA |
| 14/04 | SMALL GREEK LETTER DELTA |
| 14/05 | SMALL GREEK LETTER EPSILON |
| 14/06 | SMALL GREEK LETTER ZETA |
| 14/07 | SMALL GREEK LETTER ETA |
| 14/08 | SMALL GREEK LETTER THETA |
| 14/09 | SMALL GREEK LETTER IOTA |
| 14/10 | SMALL GREEK LETTER KAPPA |
| 14/11 | SMALL GREEK LETTER LAMDA |
| 14/12 | SMALL GREEK LETTER MU |
| 14/13 | SMALL GREEK LETTER NU |

| Bit Combination | Name |
|-----------------|---|
| 14/14 | SMALL GREEK LETTER KSI |
| 14/15 | SMALL GREEK LETTER OMICRON |
| 15/00 | SMALL GREEK LETTER PI |
| 15/01 | SMALL GREEK LETTER RHO |
| 15/02 | SMALL GREEK LETTER TERMINAL SIGMA |
| 15/03 | SMALL GREEK LETTER SIGMA |
| 15/04 | SMALL GREEK LETTER TAU |
| 15/05 | SMALL GREEK LETTER UPSILON |
| 15/06 | SMALL GREEK LETTER PHI |
| 15/07 | SMALL GREEK LETTER KHI |
| 15/08 | SMALL GREEK LETTER PSI |
| 15/09 | SMALL GREEK LETTER OMEGA |
| 15/10 | SMALL GREEK LETTER IOTA WITH DIAERESIS |
| 15/11 | SMALL GREEK LETTER UPSILON WITH DIAERESIS |
| 15/12 | SMALL GREEK LETTER OMICRON WITH ACCENT |
| 15/13 | SMALL GREEK LETTER UPSILON WITH ACCENT |
| 15/14 | SMALL GREEK LETTER OMEGA WITH ACCENT |
| 15/15 | This position shall not be used |

7.2 Code Table

The Code Table shows the characters listed at the position in the code table corresponding to the specified bit combination.

The shaded positions correspond to bit combinations that do not represent graphic characters. Their use is outside the scope of this Standard, it is specified in other ECMA Standards, e.g. ECMA-6 or ECMA-48.

The cross-hatched positions indicate bit combinations that are reserved for future standardization (see 9.).

8. DESIGNATION OF THE CHARACTER SET

The graphic characters of this Standard constitute a single coded character set. However, when this character set is implemented together with other coding standards such as ECMA-35 or ECMA-43, the Code Table of this Standard shall be considered to consist of the following components:

- The character SPACE represented by bit combination 02/00.
- A 94-character G0 graphic character set represented by bit combinations 02/01 to 07/14.
- A 96-character G1 graphic character set represented by bit combinations 10/00 to 15/15.

When required by other coding standards, e.g. ECMA-35 or ECMA-43 the following pair of escape sequences shall be used:

ESC 02/08 04/02
ESC 02/13 ../..

to designate the G0 and the G1 sets, respectively. According to ECMA-35 the character SPACE does not require designation.

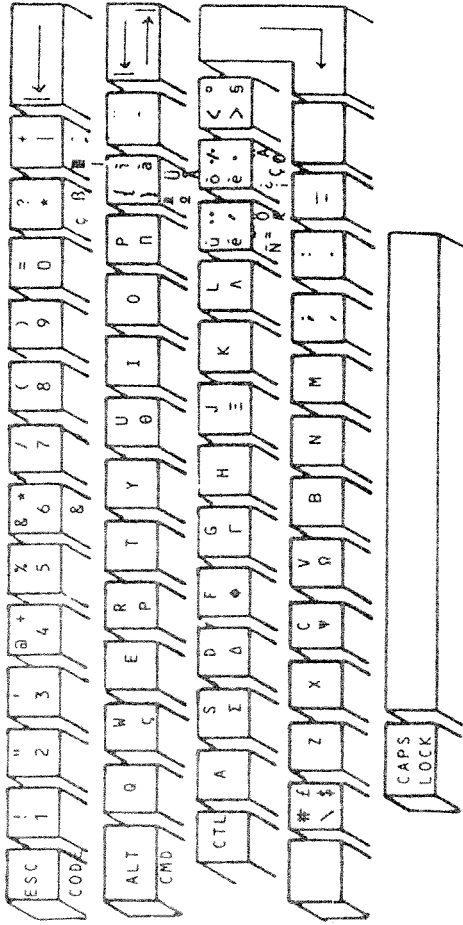
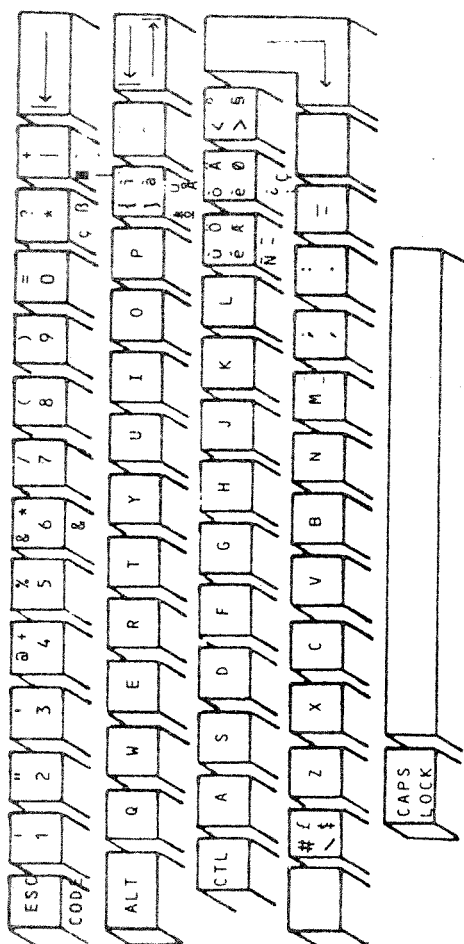
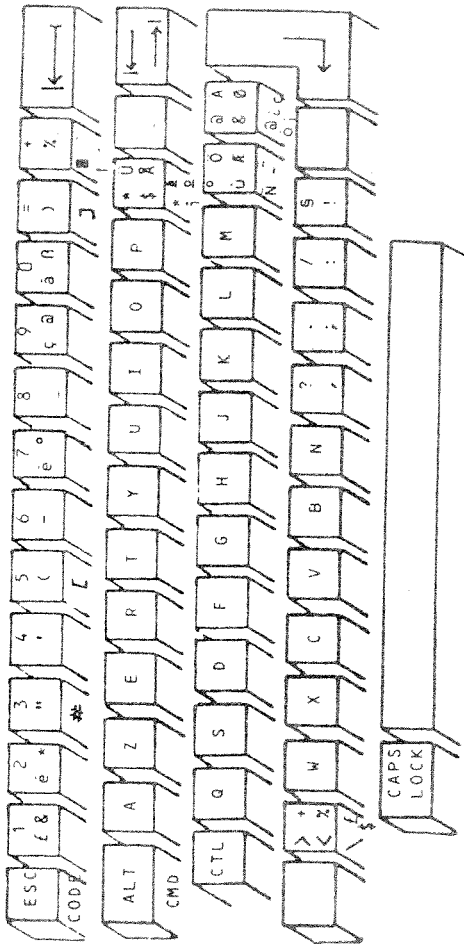
9. BIT COMBINATIONS NOT TO BE USED

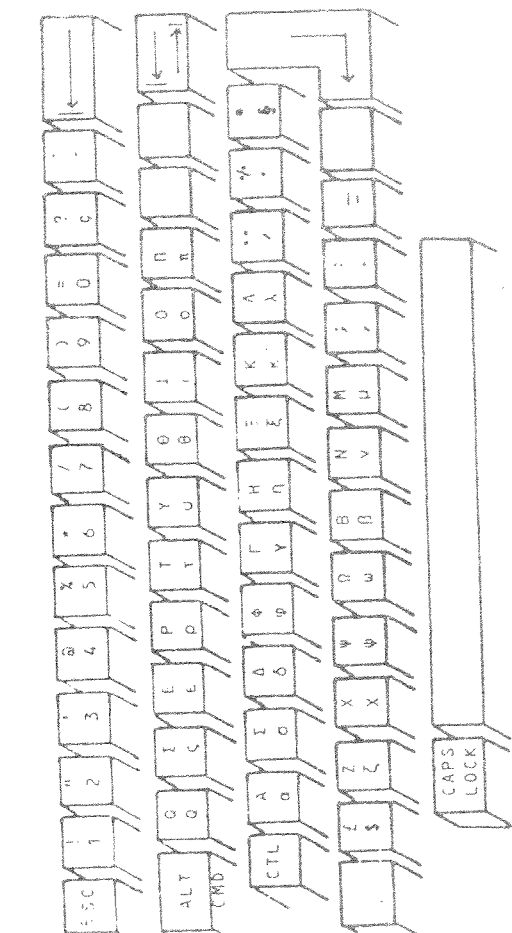
Bit combinations 10/04, 10/05, 10/10, 10/14, 13/02 and 15/15 are reserved for future standardization and shall not be used. They are cross-hatched in the Code Table.

Any allocation of characters to these positions is incompatible with this Standard.

ANNEX 9

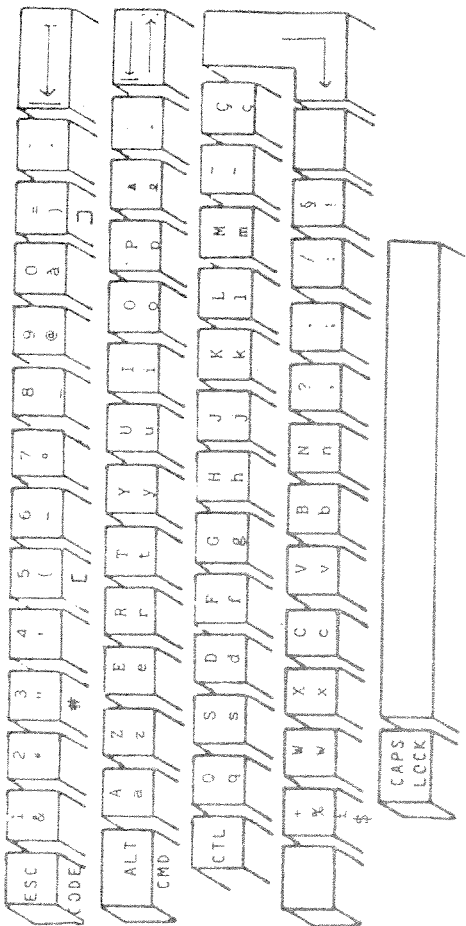
THE OLIVETTI M24 EUROPA CODIFICATION TABLE





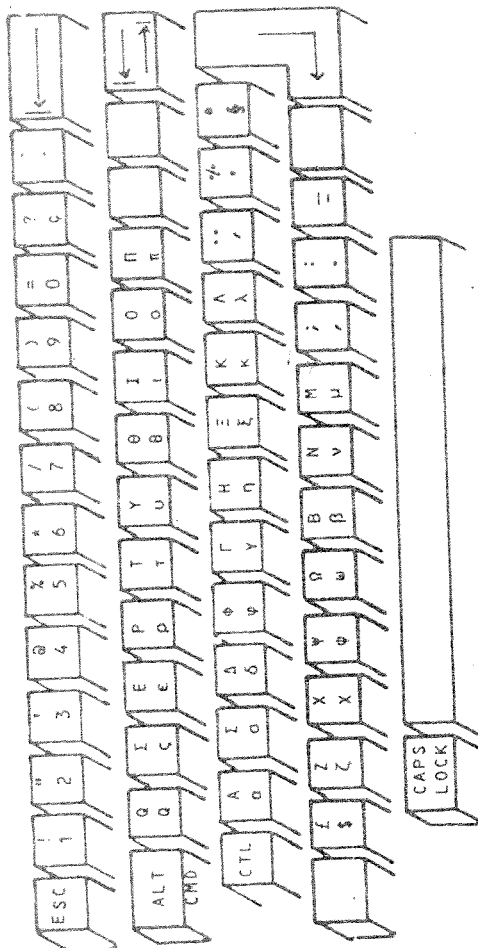
AZERTY

QWERTY



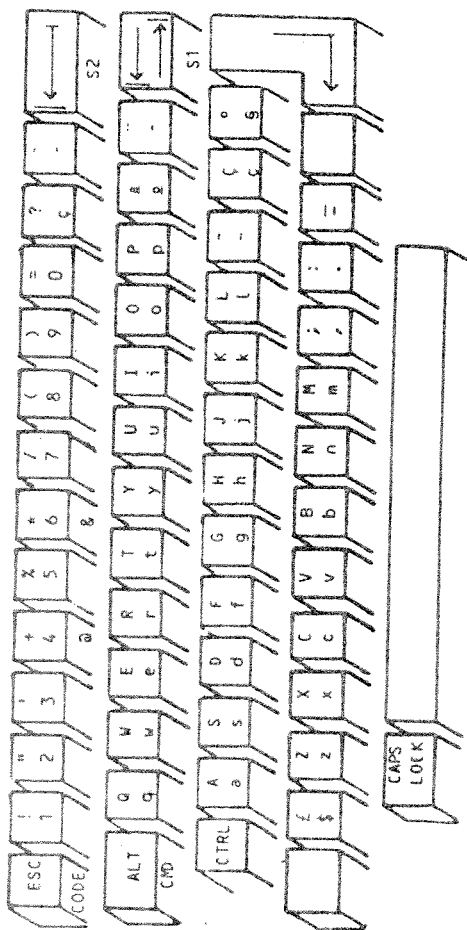
AZERTY

QWERTY



AZERTY

QWERTY



AZERTY

QWERTY

ARTICLE 11 OF BULL CONTRACT

CONTRAT DE LOCATION - DPS 88/81

ENTRE :

LA COMMISSION DES COMMUNAUTES EUROPEENNES,
ci-après dénommée "LA COMMISSION",
représentée aux fins des présentes par Monsieur J.C. MOREL,
Directeur Général du Personnel et de l'Administration

d'une part,

ET :

La Société Anonyme HONEYWELL BULL,
dont le siège social est à Bruxelles 1050
28, avenue Marnix
représentée aux fins des présentes par
Monsieur Jean-Jacques de BASSOMPIERRE, Directeur Général,

d'autre part,

IL EST CONVENU CE QUI SUIT :

17.12.85

CONTRAT DE LOCATION

ARTICLE PREMIER - TABLE DES MATIERES

| | |
|----------------|--|
| ARTICLE DEUX | DEFINITIONS |
| ARTICLE TROIS | OBJET DU CONTRAT |
| ARTICLE QUATRE | MISES EN ETAT DE SERVICE ET RECEPTION DE LA MACHINE ET DU SYSTEME |
| ARTICLE CINQ | MAINTENANCE |
| ARTICLE SIX | LOGICIELS |
| ARTICLE SEPT | DISPONIBILITE |
| ARTICLE HUIT | DUREE |
| ARTICLE NEUF | CHANGEMENT DE MACHINE |
| ARTICLE DIX | REDEVANCES ET CONDITIONS DE PAIEMENTS |
| ARTICLE ONZE | NORMES ET STANDARDS |
| ARTICLE DOUZE | CONDITIONS GENERALES |
| ANNEXE UN | EQUIPEMENTS |
| ANNEXE DEUX | LOGICIELS |
| ANNEXE TROIS | CONDITIONS D'INSTALLATION |
| ANNEXE QUATRE | NORMES ET STANDARDS |
| ANNEXE CINQ | FORMULE DE DISPONIBILITE |
| ANNEXE SIX | TERMINAUX TTY |
| ANNEXE SEPT | CLAUSES REPRISES DU PROTOCOLE |

2. ARTICLE DEUX - DEFINITIONS

"Machine"

Les composants matériels décrits à l'annexe 1.

"Logiciel"

L'ensemble des logiciels de base et des progiciels décrits en annexe 2 qui font partie du Système.

"Le Système"

"Le Système" est un ensemble d'éléments matériels et logiciels comprenant:

- . La configuration du matériel à Luxembourg: voir annexe 1;
- . Les logiciels de base et les logiciels spécialisés (MISTRAL V inclu) fournis par la firme: voir annexe 2;
- . La documentation des éléments matériels et logiciels;
- . Les fonctionnalités suivantes entre Luxembourg et Bruxelles :
 - TTY passthrough entre les DPS6 et le DPS88.
 - transfert de fichiers dans les deux directions avec un ensemble large de caractères pour l'impression.
 - les facilités remote batch et remote spool.
 - Support des terminaux TTY repris à l'annexe 6 et ceux conformes à la norme TTY décrite à l'annexe 4, à l'exclusion de tous autres.

"Compatibilité"

La Firme certifie qu'à partir de la date de signature du présent contrat, la Machine fonctionne parfaitement lorsqu'elle est utilisée avec l'ensemble des logiciels décrits à l'annexe 2 et aux conditions d'environnement et de maintenance décrites à l'annexe 3.

"Date de Livraison de la Machine"

Une date convenue d'un commun accord à la signature du contrat.

11. ARTICLE ONZE - NORMES ET STANDARDS

11.1 La Firme s'engage à ce que la Machine soit conforme aux normes européennes CEN/CENELEC lorsqu'elles existent et en leur absence, aux autres standards internationaux. En cas de conflit entre ces standards, l'ordre de préférence sera ISO, IEC, CCITT et ECMA.

Si la Commission décide d'examiner la conformité aux Standards de la Machine, la Firme s'engage à apporter toute assistance pour l'exécution des tests requis par la Commission. S'il résulte de ces tests que la Machine n'est pas conforme aux Standards, la Firme pourra pendant trois mois à partir du moment où la Commission lui aura communiqué les résultats de ces tests, apporter les modifications nécessaires pour assurer la conformité aux Standards de la Machine. A défaut pour la Firme d'agir de la sorte, la Commission sera autorisée, à l'exclusion de tout autre recours et indemnisation, à déduire de la redevance trimestrielle de maintenance de la Machine un montant égal à 1/180 ème de cette redevance pour chaque jour pendant lequel la Machine reste en défaut de satisfaire aux Standards.

11.2 Pendant toute la durée du contrat, la Firme s'engage à conserver dans tous les cas un niveau de conformité du Système au moins égal au niveau existant à la date de signature du contrat.

Lors de chaque changement du Système, la liste de l'annexe 4 sera remise à jour.

Préalablement à toute commande de nouvel équipement et/ou logiciel à fournir par la Firme celle-ci avisera la Commission:

- a) de la conformité de cet équipement et/ou logiciel avec les Normes et Standards et
- b) des conséquences connues prévisibles de l'adjonction de cet équipement et/ou logiciel au Système en ce qui concerne la conformité de ce dernier aux Standards.

11.3 Equipements et Logiciels du système non fournis par la firme

Si la Commission décidait d'examiner la conformité aux Standards d'équipements ou logiciels d'autre provenance, la Firme s'engage à apporter toute assistance pour l'exécution des tests requis par la Commission. Si la Commission accepte son devis, la Firme sera autorisée à demander le remboursement de ses dépenses relatives aux tests. S'il résulte de ces tests que le Système affecte négativement la conformité aux Standards de l'équipement ou du logiciel d'autre provenance, la Firme s'engage à éliminer ces effets dans les trois mois à partir du moment où la Commission lui aura communiqué les résultats de ces tests. A défaut pour la Firme

aura communiqué les résultats de ces tests. A défaut pour la Firme d'agir de la sorte, la Commission sera autorisée, à l'exclusion de tout autre recours et indemnisation, à déduire de la redevance trimestrielle de maintenance, un montant égal à 1/180ème de cette redevance pour chaque jour durant lequel le Système affecte négativement la conformité aux Standards de l'équipement ou du logiciel d'autre provenance.

La charge financière résultant pour la Firme du manque de conformité aux Standards en vertu des paragraphes 11.1, 11.2 et 11.3 n'exèdera ni - pour tout trimestre le montant de la redevance trimestrielle de maintenance pour l'équipement et/ou le logiciel en cause fourni par la Firme, ni - en tout cas - 4 fois le montant de la redevance trimestrielle de maintenance pour l'équipement et/ou le logiciel en cause fourni par la Firme.

| NORMES | DEFINITION | C | PC | NC | NA | Date de la future conformité | Date de la certification | Commentaire |
|------------|--|---|----|----|----|------------------------------|--------------------------|-------------|
| <u>ITT</u> | V3 IA5 | C |  |  |  | ..... | ..... | ...Comm.N°1 |
| | V21 | C | | | | | | |
| | V22 | C | | | | | | |
| | V24 | C | | | | | | |
| | V25 | C | | | | | | |
| | X21 | C | | | | | | |
| | X21 bis | C | | | | | | |
| | X25 | C | | | | | | |
| | X28 | C | | | | | | |
| | X29 | C | | | | | | |
| | T18 | | | NC |  | ..... | ..... | ...Comm.N°2 |
| | T61 |  |  |  |  | ..... | ..... | ...Comm.N°3 |
| | T62 |  |  |  |  | ..... | ..... | .. " |
| | T70 |  |  |  |  | ..... | ..... | .. " |
| | T71 |  |  |  |  | ..... | ..... | .. " |
| | Character sets, coding and character recognition | | | | | | | |
| | ISO 646 | C | | | | | | |
| | ISO 952 | C | | | | | | |
| | ISO 1073/2 | C | | | | | | |
| | ISO 1831 | C | | | | | | |
| ⇒ | ISO 2022 | C |  |  |  | ..... | ..... | ...Comm.N°4 |
| | ISO 2047 | C | | | | | | |
| ⇒ | ISO 4873 | C | = |  |  | ..... | ..... | ...Comm.N°5 |
| | ISO 6429 | C |  |  |  | ..... | ..... | ...Comm.N°6 |
| | ISO 6936 | | | NC |  | ..... | ..... | ...Comm.N°7 |
| ⇒ | ISO 6937/1&2 |  |  |  |  | ..... | ..... | ...Comm.N°8 |

C Conformité

PC Partiellement conforme

NC Non conforme

NA Non applicable

(X) Since these standards have not yet been officially ratified, the manufacturer will indicate the options he offers.

0/ECMA

| NORMES | DEFINITION | C | PC | NC | NA | Date de la future conformité | Date de la certification | Commentaire |
|---|---|---|----|----|----|------------------------------|--------------------------|---------------|
| Data communication, control procedures and interconnection of equipment | | | | | | | | |
| ISO 1155 | 1978 Longitudinal parity | C | | | | | | |
| ISO 1177 | 1973 character structure | C | | | | | | |
| ISO 1745 | 1975 Basic mode | C | | | | | | |
| ISO 2111 | 1972 Basic mode | C | | | | | | |
| ISO 2375 | 1980 Escape sequences | C | | | | | | |
| ISO 2628 | 1973 Basic mode (complements) | | | | | | | |
| ISO 2629 | 1973 Basic mode (conversational) | | | NC |  | ..... | ..... | ...Comm. N°9 |
| ISO 3309 | 1979 HDLC frame structure | | | NC |  | ..... | ..... | ...Comm. N°10 |
| ISO 4335 | 1979 HDLC Elements of Procedure | C | | | | | | |
| ISO 6159 | 1980 HDLC unbalanced | C | | | | | | |
| ISO 6256 | 1981 HDLC Balanced | C | | | | | | |
| Labelling and file structure; magnetic tapes | | | | | | | | |
| ISO 1001 | 1979 Magnetic tape Labelling and file structure | C | | | | | | |
| ISO 1863 | 1976 Tape track, 800 cpi | C | | | | | | |
| ISO 1864 | 1975 Unrecorded tape | C | | | | | | |
| ISO 5652 | 1983 Magnetic tape, 9 track, 6250 CPI | C | | | | | | |
| ISO 5654/1&2 | 1983 200 mm flexible disk/2 frequency at 13262 ftprad, one side physical and format | | | | NC | ..... | ..... | ...Comm. N°23 |
| ISO 7665 | 1984 File structure and labelling flexible disk cartridge for information exchange | | | | NC | ..... | ..... | " |
| ISO 7487/1&2 | 1984 Disk interchange on 130 mm (5,25 in) flexible disk cartridges using MFM at 7958 ftprad on both sides | | | | NC | ..... | ..... | " |
| ECMA 54 | 1982 200 mm flexible disk cartridges double frequency at 13262 ftprad on one side | | | | NC | ..... | ..... | " |

C Conformité
 PC Partiellement conforme
 NC Non conforme
 NA Non applicable

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| NORMES | DEFINITION | C | PC | NC | NA | Date de la future conformité | Date de la certification | Commentaire |
|---------------------------------------|--|---|----|----|----|------------------------------|--------------------------|--------------|
| ECMA 58 | 1981 200 mm flexible disk cartridges labelling and file structure (ISO/DIS 68C3) | | | NC | | | | ...Comm.N°23 |
| <u>LAN</u> | | | | | | | | |
| ECMA80,81,82 | 1983 LAN - CSMA/CD | | | | | | | |
| ECMA 89 | 1983 LAN - Token Ring | | | | | | | |
| ECMA 90 | 1983 LAN - Token Bus | | | | | | | ...Comm.N°11 |
| <u>Programming Languages</u> | | | | | | | | ...Comm.N°11 |
| ISO 1539 | 1980 FORTRAN | | | | | | | |
| ISO 1989 | 1978 COBOL | C | | | | | | |
| ISO 7185 | 1984 PASCAL | C | | | | | | |
| <u>Safety</u> | | | | | | | | |
| ECMA 57 | 1981 Safety requirements for data processing equipments | C | | | | | | |
| ECMA 83 | 1982 Safety requirements for DTE to DCE interfaces in Public Data Networks | C | | | | | | |
| <u>Keyboards</u> | | | | | | | | |
| ISO 3243 | Keyboards for countries whose languages have alphabetic extenders | C | | | | | | |
| ISO 3244 | Principles governing positioning of control functions on keyboards | C | | | | | | |
| <u>Standards not yet ratified (*)</u> | | | | | | | | |
| ISO/DIS 8072 | Transport service definition | | | | | | | |
| ISO/DIS 8073 | Transport protocol specification | | | | | | | ...Comm.N°12 |
| ISO/DIS 8326 | Session service definition | | | | | | | " |
| ISO/DIS 8327 | Session protocol specification | | | | | | | " |
| ISO/DP8802.2 | Logical link control (see IEEE 802.2) | | | | | | | " |
| ISO/DP8802.3 | CSMA/CD (see IEEE 802.3) | | | | | | | " |
| ISO/DP8802.4 | Token bus (see IEEE 802.4) | | | | | | | " |
| ISO/DIS 6373 | Minimal Basic | | | | | | | " |
| ISO/DP 6522 | PL/1 | C | PC | | | | | ...Comm.N°13 |

C Conformité

PC Partiellement conforme

NC Non conforme

NA Non applicable

(*) Since these standards have not yet been officially ratified the manufacturer will indicate the options he offers.

| NORMES | DEFINITION | C | PC | NC | NA | Date de la future conformité | Date de la certification | Commentaire |
|---|---|---|----|----|----|------------------------------|--------------------------|---------------|
| ISO/DIS 8384 | Network service definition | | | | | | | |
| CEPT/CD 6-1 | European Interactive Videotex (Revision 1983) |  |  |  |  | ..... | ..... | ...Comm. N°14 |
|  |  |  |  |  |  | ..... | ..... | ...Comm. N°15 |
| Liste of CEN/CENELEC | | | | | | | | |
| EN 50 049 | 1983 Péritelévision connector | C | | | | | | |
| <u>List of specifications produced by the Standard Implementation Committee (SIC)</u> | | | | | | | | |
| S-1 | Teletype TTY Compatibility | | | | | | | |
| DPS-2 | Magnetic tape conformity | C | | | | | | ...Comm. N°16 |
| DPS-3 | CEC Multilateral File Transfer System (MFTS) | | | | | | | ...Comm. N°17 |
| DPS-6 | Keyboard Multilingual Teletex | | | | | | | ...Comm. N°18 |
| DPS-10 | Textprocessing | | | | | | | ...Comm. N°19 |
| DS-11 6-11 | CEC - character set | | | | | | | ...Comm. N°20 |
| DPS-13 | Recommendation for use of FORTRAN 77 | C | | | | | | ...Comm. N°21 |
| | | | | | | | | ...Comm. N°22 |

C Conformité
PC Partiellement conforme
NC Non conforme
NA Non applicable

COMMENTAIRES

- Comm.N°1 V3 IA5 Il existe une version 1984.
- Comm.N°2 T18 Peut être réalisé sur demande.
- Comm.N°3 T61 à T71 Notre réponse incluse dans notre proposition du 2/4/1984 Chapitre III.2.25, précise notre position dans ce domaine.
Ces standards précédemment identifiés S sont devenus T.
Concernant T61 et T62, Nous fournissons un sous-ensemble strict sous la forme de notre standard D011, ci-joint.
Ce standard est en cours de révision pour être rendu compatible ISO 8859-1. Les codages 6937 et 8859-1 seront ainsi assurés.
- Comm.N°4 ISO 2022 Remarque: Ce standard est vrai dans la mesure où l'environnement programmatique le reconnaît. Il est dépendant du niveau de normalisation des langages.
- Comm.N°5 ISO 4873 Il existe une version 1985 de ce standard.
ISO 4873 est un standard cadre, sous ensemble du 2022.
Il suppose la définition d'une version spécifique d'utilisation.
- Comm.N°6 ISO 6429 La version de 1986 englobera 2047.
- Comm.N°7 ISO 6936 Peut être réalisé sur demande.
- Comm.N°8 ISO 6937 Voir notre proposition Chapitre III.2.25. et Comm.N°3.
- Comm.N°9 ISO 2628 Il est envisagé d'implémenter ce standard sur demande.
- Comm.N°10 ISO 2629 " " " " " " " "

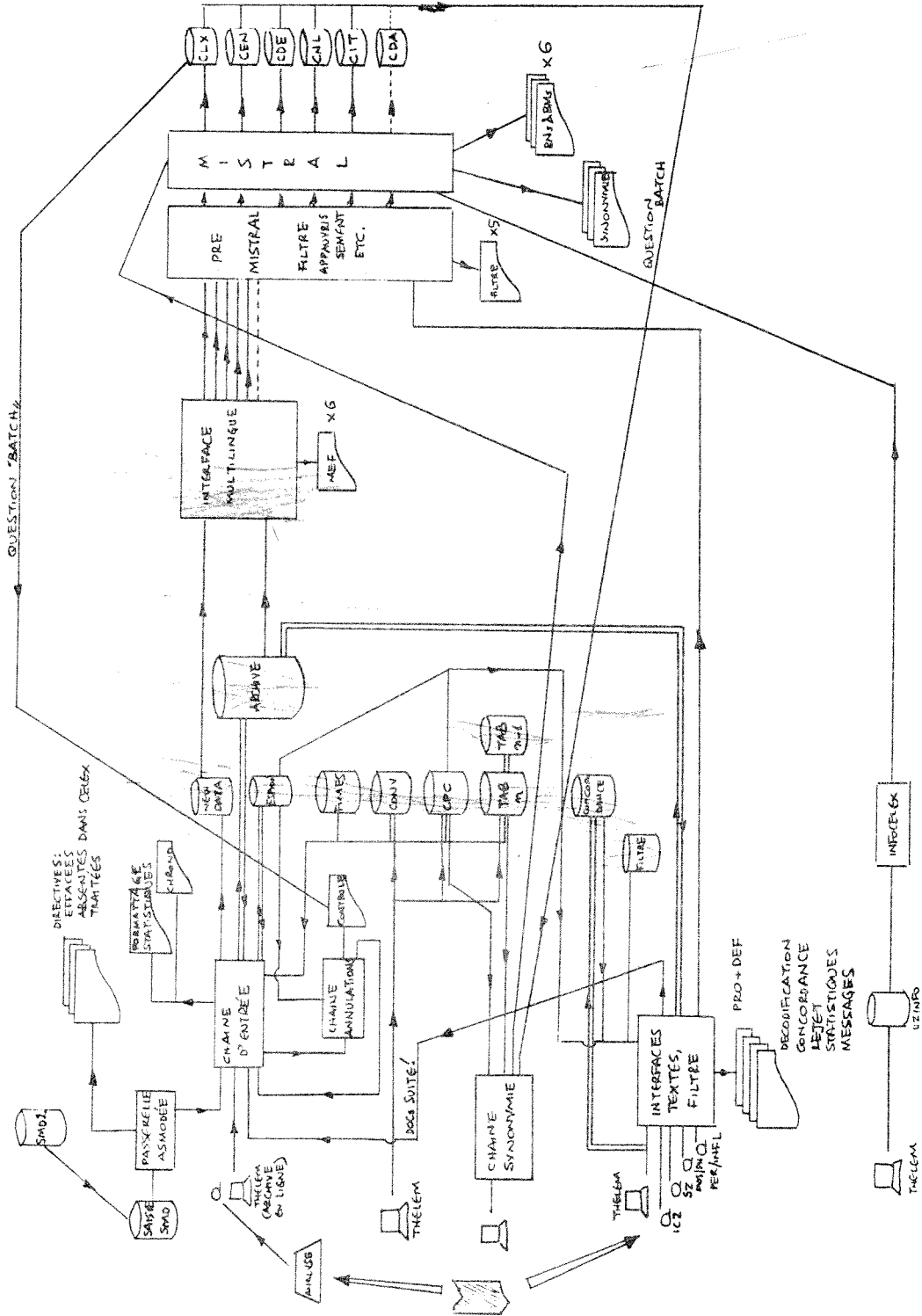
COMMENTAIRES (suite)

- Comm.N°11 ECMA 89-90 Ces standards en cours d'étude seront implémentés prochainement.
- Comm.N°12 ISO DIS 8072 Ce lot de standards fait partie de l'ensemble HD40001.
à Dans le cadre de GUS, le document SPAG précise
ISO DP 8802.4 l'état de la normalisation correspondante. Notre participation au GUS implique notre engagement à être compatible sur cet ensemble.
- Comm.N°13 ISO DIS 6373 Nous sommes en train de passer à BASIC selon la norme qui sera finalisée en 1986.
- Comm.N°14 ISO DIS 8384 Relève de HD40001 voir Comm.12
- Comm.N°15 CEPT/CD 6-1 Voir notre proposition III.2.25 et Comm.N°3
- Comm.16 S-1 Conformité pour terminaux asynchrones
- Comm.17 DPS 2 Conformité déjà précisée dans notre proposition
- Comm.18 DPS 3 Conformité jusqu'à la couche 3
- Comm.19 DPS 6 Conformité partielle, en cours voir comm.N°3
- Comm.20 DPS 10 Il n'existe pas aujourd'hui de standard. Seul un DP existe. Le standard BULL DSA 101-102 est équivalent à ECMA102. La compatibilité avec les CCITT X400 sera assurée.

COMMENTAIRES (suite)

- Comm.21 DS 11 6-11 Notre engagement sera sur la base de l'extension sur l'alphabet grec de ISO 6937.
- Comm.22 DPS 13 Cette recommandation est admise.
- Comm.23 ISO 5654
7665
7487
ECMA 54.58 Standards en cours de vérification.
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THE CELEX MONSTER



THE GREEK CELEX PROJECT

