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COMPUTERIZATION OF THE AGRINTER/AGRIS PRODUCTION FLOW

AT IICA-CIDIA IN TURRIALBA, COSTA RICA

February 10 - March 4, 1975

By

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IICA-CIDIA in Turrialba, Costa Rica

H. Schmid, IDRC Consultant

Summary

This report describes a solution for computerization of the AGRINTER/AGRIS production flow. Maximum use of existing resources (University of San José computer, AGRIS software of IAEA, Vienna) has been considered in order to keep the development costs low and time short until finishing the project.

Part 1 contains a schedule for the next 2-1/2 years concerning equipment, staff and computer time requirements, as well as the gradual development of the complete project.

Part 2 describes the technical details of the project, e.g. the implementation of the existing software, the modifications required for AGRINTER, and the AGRINTER production.

Part 3 deals with some future aspects about the use of AGRINTER or AGRIS output tapes (SDI services, retrospective search, etc.)

February 1975

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF POLITICAL SCIENCE

1954-55

CONFIDENTIAL

MEMORANDUM FOR THE RECORD

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INTRODUCTION

The 'Centro Interamericano de Documentación e Información Agrícola - IICA-CIDIA' in Turrialba, Costa Rica, has two different kind of tasks:

- to produce the Latin American bibliography for agricultural sciences: AGRINTER. This index started to be published nine years ago with a quarterly frequency, each issue containing about 3000 references.
- to supply the Food and Agriculture Organization (FAO), Rome, with information for the worldwide agricultural information system AGRIS, which is operational since January 1975. In this case CIDIA is responsible only for documents published in Latin American and the Caribbean countries. About 60% of the AGRINTER data is to be used for AGRIS input.

It has been tried in the past [1] to make AGRIS and AGRINTER as much compatible as possible in order to avoid duplication of efforts, therefore AGRIS and AGRINTER use the same worksheet. The small differences (mostly concerning the different carrier languages: English for AGRIS, Spanish for AGRINTER), are taken into consideration.

Until now AGRINTER has been processed manually, only the personal author and title KWIC indexes were generated by computer use. AGRIS input is presently submitted on worksheets.

The use of a computer for AGRINTER/AGRIS processing is required as soon as possible for several reasons:

- The number of documents per month is increasing steadily and a manual treatment will be more and more difficult. Example: the AGRINTER production takes at present time 7 weeks.
- Requirements of AGRIS input is to be in machine-readable form, namely on magnetic tapes in ISO format [2].

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author details the various methods used to collect and analyze the data. This includes both manual and automated processes. The goal is to ensure that the data is as accurate and reliable as possible.

The third section provides a comprehensive overview of the results obtained from the analysis. It highlights key trends and patterns that have emerged from the data. These findings are crucial for understanding the underlying dynamics of the system being studied.

Finally, the document concludes with a series of recommendations based on the findings. These suggestions are intended to help improve the efficiency and accuracy of the data collection and analysis process in the future.

- At present time the bibliographic data are typed and proofread three times: keypunching in Vienna for AGRIS input, typesetting in Turrialba for AGRINTER, keypunching of titles and authors for the indexes. If the data are published in a local bibliography (e.g. data from Brazil) a fourth time typing and proofreading is required.
- With increasing input CIDIA will ask its contributing national centers (member states) to supply input in machine-readable form, in order to decrease the workload in Turrialba. Brazil will very soon be able to submit AGRINTER input in machine-readable form.
- Finally, machine-readable bibliographic data open many possibilities for its use, as SDI (selective dissemination of information) services or retrospective searches for users in Latin American countries.

This report describes a possible solution to the computerization of the AGRINTER/AGRIS production flow by using the University of San José computer and the AGRIS software of the International Atomic Energy Agency, IAEA, Vienna. This software package has been originally developed for the International Nuclear Information System, INIS [3] and then modified to fulfill AGRIS requirements [4].

Because of this software developments, the IAEA, Vienna, was designated to process the AGRIS input and in March 1974 some member states requested to make the AGRIS software available for use at an inputting centre. This computer system has been implemented at the University of San José computer and it has been proved that the hardware requirements* are available in Costa Rica to run this system. It is now the task of IICA-CIDIA to continue the started project by purchasing the missing equipment (e.g. upper-lower case print train), to employ a computer specialist for developing the AGRINTER production programs

* Concerning the data input equipment, punched cards will be used, having in mind that in about two years any better methods (keyboard to tape, or on-line data entry) will be available in Costa Rica as well.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the success of any business or organization. The text outlines various methods for recording transactions, including the use of journals, ledgers, and account books. It also discusses the importance of regular audits and reconciliations to ensure the accuracy of the records.

The second part of the document focuses on the classification of transactions. It explains how transactions should be categorized based on their nature and the accounts affected. This section provides a detailed list of common transactions and the corresponding journal entries. It also discusses the importance of using consistent and clear descriptions for each transaction to facilitate future reference and analysis.

The third part of the document addresses the issue of balancing the accounts. It explains how to calculate the total debits and credits for each account and how to identify any discrepancies. The text provides step-by-step instructions for identifying the cause of an imbalance and correcting it. It also discusses the importance of maintaining a balanced set of accounts as a sign of good financial management.

The fourth part of the document discusses the preparation of financial statements. It explains how to use the balanced accounts to prepare the income statement, balance sheet, and statement of cash flows. The text provides a detailed guide to the format and content of each statement, as well as the necessary calculations and adjustments. It also discusses the importance of presenting the financial statements in a clear and concise manner for the benefit of management and other stakeholders.

The fifth and final part of the document discusses the importance of maintaining the integrity of the accounting system. It emphasizes the need for honesty, accuracy, and transparency in all accounting activities. The text outlines various ethical considerations and provides guidance on how to handle difficult situations. It also discusses the importance of staying up-to-date on changes in accounting standards and regulations to ensure compliance and the reliability of the financial information.

in the indicated way, and to train its staff to use the computer in an effective way, so that the extra computer operation is justified by saving manual work.

Part 1: Schedule of the Project Sept. 1974 - Aug. 1977

Because of the fact that the project is sponsored by the International Development Research Center, IDRC, Canada, as a 3 years project, in agreement with IDRC the following schedule has been worked out.

Sept. 1974 - Aug. 1975

In the first year of the agreement the following items should be accomplished (see also 2.2 in Part 2):

a) Purchase of

- an IBM 29 key-punch machine including interpretation feature (about 7000 \$)
- an IBM 1416 print train with upper-lower case characters (about 4000 \$), see Appendix II for the proposed printer arrangement.
- 50 reels of 2400 feet magnetic tapes for computer processing in Costa Rica and 12 minireels for mailing to Vienna (about 1400 \$)
- one disk pack for IBM 2314 disk drive (about 600 \$)

b) Employment of a computer specialist taking care of all computer operations and program developments at IICA-CIDIA (see Appendix III).

c) During this period AGRIS input to Vienna is done for about 20 documents on magnetic tape, the remaining worksheets are submitted as worksheets.

d) AGRINTER is still produced manually.

e) Development and testing of AGRINTER programs to be started.

f) An arrangement with the University of San José is to be finalized for the use of the computer.

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- g) The printing of the proof-lists and later the bibliography with the special print train has to be performed at a computer center with an interchangeable print train (e.g. the commercial data processing center SEDCA, or at the University when a new printer is installed).
- h) Data input is done by punched cards.

Computer time requirements:

4-6 hours per week until the employment of computer specialist

8-10 hours per week after specialist's employment, including testing of new programs.

Sept. 1975 - Aug. 1976:

The second year of the agreement is supposed to introduce considerable changes into the operation. In January 1976 the software for AGRINTER should be ready for production, whereby most of the programs are identical with the AGRINDEX production programs, and are available from Vienna. New programs will have to be developed and tested. The present procedure for the KWIC index could be used at the beginning by punching titles into cards via computer, in the same format now done manually. These cards are then processed by the IBM 1130 with the existing programs.

At the same time the present AGRIS checking programs have to be modified in order to accept AGRINTER input as well (e.g. diacriticals, etc.).

When all the above requirements are fulfilled (January 1976) all data will be punched in machine-readable form, no worksheets will be sent to Vienna for AGRIS input, the AGRINTER production will be performed by computer.

At the end of this period the KWIC index programs have to be transferred from the present IBM 1130 computer to the IBM 360, so that the complete AGRINTER production is processed in San José.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

Furthermore, it is noted that the records should be kept in a secure and accessible format. Regular backups are recommended to prevent data loss in the event of a system failure or disaster.

The second part of the document outlines the procedures for handling discrepancies. It states that any differences between the recorded amounts and the actual amounts should be investigated immediately. The reasons for these discrepancies could range from clerical errors to more complex issues like fraud.

It is stressed that once a discrepancy is identified, it should be corrected promptly and the correction should be clearly documented. This helps in maintaining the integrity of the financial statements.

Conclusion

In conclusion, the document highlights that accurate record-keeping is not just a legal requirement but also a key to the success of any business. It provides a clear framework for how to manage financial data effectively.

By following the guidelines provided, businesses can ensure that their financial records are reliable and trustworthy. This not only helps in making informed decisions but also in complying with regulatory requirements.

The document also serves as a reminder that attention to detail is crucial in financial management. Small errors can lead to significant problems down the line, so it is essential to double-check all entries and maintain a high level of accuracy.

Finally, it is advised that businesses should review their record-keeping processes periodically to identify any areas for improvement. Adopting new technologies or software can streamline the process and reduce the risk of human error.

Computer time requirements:

Sept. 75 - Dec. 75: 8-10 hours per week
2 hours printing per week (special train)

Jan. 76 - Sept.76: 10 hours per week processing
5 hours per week testing
5 hours per week printing (special train)

Sept. 76 - Aug. 77:

In the last year of the IDRC contract, programs to accept machine-readable input should be implemented (input form Brazil), and machine-readable output (e.g. AGRINTER tape to Brazil) should be provided.

The possibility of running an SDI service for users in IICA member states is to be studied using AGRIS or AGRINTER tapes, or CAIN tapes. Another project for this year will be the Union List of Serials, ULS.

At the same time the AGRINTER/AGRIS software has to be maintained according to any new requirements of FAO, Rome (changes in descriptive cataloguing rules, introduction of new features).

At the very end of the contract the input equipment problem has been reconsidered. It is probable that at this time more effective and modern input equipments are available in Costa Rica (keyboarding to magnetic tape or on-line equipment, i.e. terminals). The University of San José is now starting to generate a DOS system with teleprocessing. One should consider to perform the primary data input with this system.

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Part 2: Technical Aspects

This part shows in great detail the technical problems and proposals for their solution. It should be emphasized here that any solution suggested today might be replaced by a new one due to the fast developments in the field of computers and to the fact that such a system must be a dynamic one, being easily changeable to meet the needs of its users. In order to understand this part the reader is supposed to be familiar with the AGRIS reference series: [27].

1. AGRINTER/AGRIS worksheet

The present system at CIDIA up to the complete worksheet is well organized due to all the efforts made in the last years. All necessary AGRIS manuals have been translated into Spanish and modified according to AGRINTER needs. Special considerations should be given to the following items:

1.1 TRN number (Temporary Reference Number)

Worksheets coming from member states contain at the moment a "local TRN" which is then manually changed to an IF-TRN number. It is strongly recommended that CIDIA delegates the assignment of the final TRN number to the member states. Since the AGRIS software from Vienna does not provide the handling of several TRNs for one document, this procedure can only be carried out manually which might be a source of errors. In order to avoid duplication, certain ranges of TRN should be given to member states:

e.g. IF7x9nnnn to Brazil

IF7x8nnnn to Argentina, etc.

Even letters would be allowed in the fifth position of the TRN number. Since not all documents are sent to AGRIS, AGRIS would not receive a continuous serie of TRN numbers, which does not violate any AGRIS rules.

The first part of the report deals with the general situation in the country. It is noted that the economy is still in a state of depression, and that the government has taken various measures to stimulate it. The report also mentions the progress of the reconstruction work, and the state of the public services.

The second part of the report deals with the financial situation. It is noted that the government has managed to reduce its deficit, and that the public debt has been kept under control. The report also mentions the progress of the financial reforms, and the state of the public accounts.

The third part of the report deals with the social situation. It is noted that the government has taken various measures to improve the living conditions of the people, and that the social services have been expanded. The report also mentions the progress of the social reforms, and the state of the public opinion.

The fourth part of the report deals with the political situation. It is noted that the government has managed to maintain a stable political situation, and that the public opinion is generally favourable. The report also mentions the progress of the political reforms, and the state of the public administration.

The fifth part of the report deals with the international situation. It is noted that the country has maintained friendly relations with its neighbours, and that it has participated in various international organizations. The report also mentions the progress of the international relations, and the state of the world economy.

When a document gets published in the AGRINTER Bibliography it receives an AGRINTER-RN number; when it is published in AGRINDEX it receives an AGRIS-RN number. As link between these two RN numbers series, serves the TRN number.

1.2 Bilingual entries for several data elements

Under the assumption that key-boarding of AGRINTER/AGRIS is performed only once, there may be only one worksheet carrying all necessary information used for both systems.

The following differences exist between AGRIS and AGRINTER:

1.2.1 Diacritical signs

Since AGRINTER is a bibliography with Spanish as carrier language it has been decided to keep the Spanish diacritical signs only (no Portuguese ones), i.e. Ñ ñ á é í ó ú. All data elements in Spanish language are to be entered with diacritical signs on the worksheet (AGRIS and AGRINTER). A computer program will suppress all diacriticals on the tape sent to the AGRIS input unit (Vienna).

1.2.2 Title enrichments

Requirements for

AGRIS: at the English title (tag 200) in English

AGRINTER: at the original title (tag 230 or 200) in
Spanish

Worksheet entry:

AGRINTER/AGRIS:

English title: tag 200: Title in English with enrichment in English in square brackets
tag 230: Only enrichment in Spanish in square brackets.

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Non-English title: tag 200: Title in English in square brackets with enrichment in English inner square brackets.
tag 230: Title in original language with enrichment in Spanish in square brackets.

AGRINTER only:

English title: tag 200: Title in English
tag 230: Only enrichment in Spanish in square brackets.

Note: Enrichment in Spanish could be given at tag 200 as well if it is desired.

Non-English title: tag 200: -
tag 230: Title in original language with enrichment in Spanish in square brackets

1.2.3 City and country names (tags 100, 110, 211, 401, 230 S)

Requirements for

AGRIS: English names (e.g. Guatemala City)

AGRINTER: Spanish names (e.g. Ciudad de Guatemala)

Worksheet entry

AGRINTER/AGRIS: All city and country names are to be entered in English. A computer program (to be incorporated in the checking cycle, see 3.2 in part 2) should check for the word 'City' and verify the preceding word to be either 'Guatemala' or 'Panamá' or 'México'.

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The key-punch operator should be advised that the correct spelling of 'City' is vital, because only then the check program is working. This correct spelling allows then to translate the English city name into Spanish when AGRINTER is printed. With country names there is no problem, since they are checked for standardized spelling in the checking cycle.

AGRINTER only: Country names to be entered in English, otherwise the checking programs would reject them. City names can be entered either way. If the English version is used the word 'City' must be spelled correctly (see above).

1.2.4 Notes (tag 610)

Requirements for

AGRIS: Text in English (e.g. tables, illus.)

AGRINTER: Text in Spanish (e.g. tablas, ilus.)

Worksheet entry:

AGRINTER/AGRIS: Since tag 610 may contain any notes, not necessarily standardized, an automatic translation is not possible. It would be more logical to create a separate tag, however, this raises problems for the maintenance of the computer software. The present computer software rejects any tags different from the accepted AGRIS tags. Therefore it is suggested to enter both data elements in the tag 600, whereby first the English version and then the Spanish version is entered. The Spanish version is entered in square brackets.

AGRINTER only: Note given in Spanish (square brackets are not required).

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the success of any business and for the protection of the interests of all parties involved. The document outlines the various methods and systems that can be used to ensure the accuracy and reliability of financial records.

The second part of the document provides a detailed overview of the different types of financial statements that are commonly used in business. It explains the purpose and content of each statement, including the balance sheet, income statement, and cash flow statement. The document also discusses the importance of reconciling these statements and ensuring that they are consistent and accurate.

The third part of the document focuses on the role of internal controls in maintaining the integrity of financial records. It describes the various internal control systems that can be implemented to prevent and detect errors and fraud. The document also discusses the importance of regular audits and the role of the audit committee in overseeing the internal control system.

The fourth part of the document discusses the importance of transparency and disclosure in financial reporting. It explains the various disclosure requirements that apply to different types of businesses and the consequences of non-compliance. The document also discusses the role of the auditor in providing an independent opinion on the financial statements and the importance of the auditor's report.

In conclusion, the document emphasizes that maintaining accurate and reliable financial records is a critical responsibility for all businesses. It provides a comprehensive overview of the various methods and systems that can be used to ensure the accuracy and reliability of financial records, and discusses the importance of internal controls, transparency, and disclosure in financial reporting.

1.2.5 Dates (tags 213,403)

Requirement for

AGRIS: Abbreviations for months according to English.

AGRINTER: Abbreviations for months according to Spanish.

Worksheet entry:

Since the abbreviations for months are standardized and checked by program, all documents (AGRINTER only"as well) have to use the English form. At AGRINTER printing the translation is to be performed.

Note: The worksheet prepared at present at the AGRINTER national cooperative centers are in Spanish only. As soon as the national center send input in machine-readable form they have to follow the above mentioned rules. The indication 'worksheet entry' in section 1.2 means the form of the worksheet at the time of key-boarding.

1.3. Proposed future changes in the worksheet (when it gets printed next time, in about 2 years)

- Since the notes have to be entered in both languages, the field for tag 610 is too small.
- The Vienna software uses tag 000 for the purpose to indicate the input medium and its translation table, which is valid until the next tag 000 is encountered, so that the information AGRINTER/AGRIS has to be entered at another place, e.g. as suffix to the TRN number (see key-punch instructions 4.6 in part 2). It is suggested in later editions of the worksheet not to print 000.

2. Computer Requirements

2.1 Hardware available in Costa Rica

Appendix I gives an overview of the computer facilities in Costa Rica (January 1975).

The computer installed at IICA (section D) is well suited for scientific use only. For processing bibliographic information the system would have to be increased by extra input/output equipment (disks, tapes), no existing software could be used; there is no high-level language (COBOL or PL/I) for text processing. Therefore all coding would have to be performed in Assembler language (about 3 men-years). Furthermore, there are no effective utility programs for sort/merge operations, as well as the whole machine would be too slow to process all the information, especially taking into account the expected increase of documents in the next years.

The commercial data processing center SEDCA (section B) has two computers installed, the larger one is excellently suited for the planned work.

The third computing centre available to IICA is the University of Costa Rica in San José. Since the processing there would be the most preferred one from financial point of view, all tests have been carried out at the University. The University computer is well equipped with disk drives and tape units. Since the core size (192K) is the lower limit for running OS, only the most simple OS version PCP (primary control system) is operational.

10/20/1917

Dear Mr. [Name],

I have received your letter of the 19th and am glad to hear that you are interested in the [subject]. I am sure that the [subject] is of great importance and that you will find the [subject] very interesting.

I am sure that you will find the [subject] very interesting and that you will find the [subject] very interesting.

I am sure that you will find the [subject] very interesting and that you will find the [subject] very interesting.

I am sure that you will find the [subject] very interesting and that you will find the [subject] very interesting.

I am sure that you will find the [subject] very interesting and that you will find the [subject] very interesting.

I am sure that you will find the [subject] very interesting and that you will find the [subject] very interesting.

I am sure that you will find the [subject] very interesting and that you will find the [subject] very interesting.

I am sure that you will find the [subject] very interesting and that you will find the [subject] very interesting.

I am sure that you will find the [subject] very interesting and that you will find the [subject] very interesting.

Another difficulty is the slow printer (1403/2 with 600 lines/min) with a not exchangeable print train. Therefore printing of the check lists and final print of AGRINTER has to be performed at SEDCA, which has a printer (1403/N1) with exchangeable print train and the universal character set.

2.2 Equipment and Manuals to be purchased by IICA-CIDIA

2.2.1 Print train

The AGRINTER/AGRIS operation requires a special train with the AGRIS character set, the PL/I character set (the existing print train serves for FORTRAN programs only which need a smaller character set), and the Spanish diacritical signs.

As type font only the so-called TEXT font provides upper and lower case characters which means either a SN-5 or a TN-5 train. Due to the specific requirement a TN-5 train with a special arrangement has been proposed (see Appendix II). Most slugs can be chosen as standard ones, 12 out of the 80 must be manufactured on request. Purchase price is about 4000\$, life time 4-6 years depending on the use and maintenance. After this time a major maintenance procedure will be required (1000-2000\$ depending on the status).

2.2.2 Disk pack

IICA-CIDIA needs for the processing of its data a private disk pack. It is suggested to buy one BASF disk pack for an IBM 2314 drive directly from Germany in the same way as the University bought its own disk packs or an IBM 2316 from IBM. Purchase price about 600\$.

... (faint text) ...

... (faint text) ...

... (faint text) ...

... (faint text) ...

... (faint text) ...

... (faint text) ...

... (faint text) ...

... (faint text) ...

... (faint text) ...

2.2.3 Magnetic tapes

Since none of the centers can provide enough tape reels, IICA-CIDIA needs to have its own magnetic tapes. The estimated figure is for the first year 50 tapes (2400 feet) (10 checking cycle back-up tapes, 12 AGRIS monthly tapes, 12 AGRINTER monthly tapes, 4 program tapes and 12 work tapes) with an increase of yearly 24 tapes (archive copies of old AGRIS/AGRINTER files). Furthermore 12 minireels are needed for mailing to Vienna.

Price:	50	2400 feet tapes at	25\$	1250\$
	12	minireels about	12\$	<u>150\$</u>
				<u>1400\$</u>

2.2.4 Key-punch machine: IBM 29

As primary data entry machine, for the time being an key-punch machine has been chosen.

Since this machine is used full-time, a new one has to be rented (or purchased). The machine must be equipped by EBCDIC key identifications and EBCDIC card interpretation. It is very desirable to have the 'fast skip option' included, since it speeds up punching time.

Another desirable extra feature is the interpretation feature (to print text on cards which are punched by computer). The interpretation machine of the University accepts BCD cards only. However, the price of the interpretation feature is rather high.

10/10/10

The following information is for your information only. It is not intended to be used as a basis for any decision. It is not a contract and does not constitute an offer. It is subject to change without notice. It is not intended to be used as a basis for any decision. It is not a contract and does not constitute an offer. It is subject to change without notice.

The following information is for your information only. It is not intended to be used as a basis for any decision. It is not a contract and does not constitute an offer. It is subject to change without notice. It is not intended to be used as a basis for any decision. It is not a contract and does not constitute an offer. It is subject to change without notice.

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10/10/10

	<u>Purchase</u>	<u>Maintenance</u>	<u>month</u>
Prices (in ¢): Standard IBM 029	31.355¢		270¢
High speed skip +	7.432¢		50¢
Interpretation + (model C22)	21.830¢		50¢

2.2.5 OS Manuals

There should be one copy available at IICA-CIDIA of the IBM manuals listed under 67.

The manuals should be ordered for OS MFT Rel. 21.7 although the existing operating systems are lower releases (PCP Rel. 19.3 at University). However, SEDCA and the University announced to go to higher releases soon. It might be possible to find at the IAEA some of the old manuals for the old releases, which can be mailed to Turrialba.

3. Software Description

3.1 Checking cycle - AGRIS only

The AGRIS software developed at IAEA is presently used in Vienna and in some inputting centers. The programs are distributed on magnetic tape; three to four times a year update versions of the programs are distributed. The system is documented in draft reports 4,57; this chapter will be fully understandable only to those readers familiar with the above mentioned documentation. The programs have been implemented at the University computer installation under the operating system OS PCP Rel. 19.3.

Some problems were found:

- Subroutine LRECL (see program CVPI) gives incorrect results.

CONFIDENTIAL

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CONFIDENTIAL

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CONFIDENTIAL

It has been replaced by a routine which sets the maximum length of a record to the fixed value 3496.

- The parameter on the EXEC card gets sometimes destroyed by converting the last character to X. The problem has been solved by adding spaces or a dummy parameter.
- Since a PCP system works without spooling only one output class (A) is allowed. In order to provide the printing of system messages (file SYSPRINT) and the checking list (file LIST), the second file is stored on a permanent data set (file LIST on XIA.LIST), which is then saved on the backup tape as sixth file. It is printed as the last job step.
- Since at the present time the University has a RN print train (52 characters), an intermediate solution has been found by simulating the upper and lower case and some special characters in the following way. Two lines are printed in place of one original print line:

char.	special print	char.	special print
A to Z	· · Å to Ž	a to z	A to Z
.,* - 0 to 9	unchanged	/	# or Ñ
(%)	¶
[· %]	· ¶
=	#	'	⊙
?! " should be avoided for the time being.			
;	· ·	:	· ·

1950年12月1日 星期一
 今天天气晴朗，阳光明媚，微风轻拂，让人感到心旷神怡。上午九时，我和几位同学相约去郊外游玩。郊外的景色真美啊！金黄的油菜花开了，散发出阵阵清香。绿油油的麦苗在微风中轻轻摇曳，仿佛在向我们招手。远处，几只小鸟在空中自由自在地飞翔，给这美丽的景色增添了几分生机。

中午，我们在郊外的小亭子里休息。同学们有的在聊天，有的在欣赏风景，大家脸上都洋溢着幸福的笑容。下午二时，我们继续前行，来到了一片广阔的田野。田野里，农民伯伯们正在辛勤地劳作，他们的身影在阳光下显得格外忙碌。看着他们那忙碌的身影，我不禁想起了那句诗：“谁知盘中餐，粒粒皆辛苦。”

不知不觉，太阳已经西斜，天边染上了一抹绚丽的晚霞。我们依依不舍地告别了美丽的郊外，踏上了回家的路。一路上，我脑海里一直浮现着郊外的景色，心中充满了无限的遐想。这次郊游不仅让我领略了大自然的美丽，更让我体会到了劳动的艰辛和收获的喜悦。

回到家后，我迫不及待地拿出日记本，记录下这美好的一天。看着自己写下的文字，我的心里充满了成就感。明天，我要继续努力学习，为祖国的明天贡献自己的一份力量。

1951年1月10日 星期日
 今天是个好日子，阳光明媚，微风轻拂。上午，我和几个同学去郊外游玩。郊外的景色真美啊！金黄的油菜花开了，绿油油的麦苗在微风中轻轻摇曳。远处，几只小鸟在空中自由自在地飞翔。

中午，我们在郊外的小亭子里休息。下午二时，我们继续前行，来到了一片广阔的田野。农民伯伯们正在辛勤地劳作。不知不觉，太阳已经西斜，天边染上了一抹绚丽的晚霞。我们依依不舍地告别了美丽的郊外，踏上了回家的路。

回到家后，我迫不及待地拿出日记本，记录下这美好的一天。明天，我要继续努力学习，为祖国的明天贡献自己的一份力量。

A separate printing program LISTG has been written to accomplish the above mentioned character simulation. As soon as the new print train is available this program is to be replaced by a simple tape printing program (IEBGENER for OS MFT; in PCP, the record format VBA has to be changed to FA).

Another program HOLDBF (see Fig. 1) has been written and incorporated in the checking cycle which allows documents from the bibliographic file to be retained for the next cycle and not being sent to Vienna. This checking cycle is fully operational and should be used from now on to send on a monthly basis about 20 documents to Vienna.

The full amount of data should be processed as soon as the AGRINTER modification and additions are available (see 3.2 and 3.3 in part 2). The tape for Vienna is recorded in EBCDIC code (not ASCII as required by AGRIS) since for the time being none of the computer centers has provision for ASCII coded magnetic tapes (to be performed at system generation time). This is no problem at all for the processing in Vienna.

3.2 AGRINTER/AGRIS Checking Cycle

When AGRINTER data are entered in the checking cycle several program modifications are necessary to provide for the special requirements described in 1.2. It is proposed to perform these modifications in Vienna, since it facilitates the program maintenance.

Following changes are necessary:

- Accept diacriticals in the input conversion program (see Appendix VI for proposed EBCDIC representation of ñ Ñ á é í ó ú) and in the bibliographic check program.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the success of any business and for the protection of the interests of all parties involved. The document outlines the various methods and systems that can be used to ensure the accuracy and reliability of financial records.

It further explains that the use of standardized accounting practices and the adoption of modern technology can significantly improve the efficiency and effectiveness of record-keeping. The document also highlights the need for regular audits and reviews to identify any discrepancies or errors in the records and to ensure that the information is up-to-date and accurate.

In addition, the document discusses the importance of maintaining clear and concise records that are easy to understand and interpret. It provides guidance on how to organize and categorize transactions, and how to use appropriate accounting terminology and conventions. The document also emphasizes the need for transparency and accountability in all financial dealings, and the importance of providing clear and accurate information to all stakeholders.

Overall, the document provides a comprehensive overview of the various aspects of record-keeping and accounting, and offers practical advice and guidance on how to implement effective record-keeping systems and practices. It is a valuable resource for anyone involved in business or financial operations, and is essential reading for anyone who wants to ensure the accuracy and reliability of their financial records.

THE IMPORTANCE OF ACCURATE RECORDS

Accurate records are the foundation of any successful business. They provide a clear and concise overview of all transactions, allowing you to track your progress, identify trends, and make informed decisions. Without accurate records, you would be unable to determine your true financial position, and you would be at a significant disadvantage when it comes to managing your business.

One of the primary reasons why accurate records are so important is that they provide a clear and concise overview of all transactions. This allows you to track your progress, identify trends, and make informed decisions. Without accurate records, you would be unable to determine your true financial position, and you would be at a significant disadvantage when it comes to managing your business.

Accurate records also provide a clear and concise overview of all transactions, allowing you to track your progress, identify trends, and make informed decisions. Without accurate records, you would be unable to determine your true financial position, and you would be at a significant disadvantage when it comes to managing your business.

Finally, accurate records are essential for maintaining transparency and accountability in all financial dealings. They provide a clear and concise overview of all transactions, allowing you to track your progress, identify trends, and make informed decisions. Without accurate records, you would be unable to determine your true financial position, and you would be at a significant disadvantage when it comes to managing your business.

- Accept the AGRINTER/AGRIS indication (included on the worksheet) and print it in the check list.
- Allow to correct this information in the update cycle.
- Accept documents for AGRINTER only (tag 200 might be missing)

A new checking program should be added after program INISBC which checks for the bilingual entry in tag 610 for AGRINTER/AGRIS worksheets and checks for correct city names by using the word 'City' as the key-word and testing the preceding word for 'Guatemala', 'México' or 'Panamá'. The error codes for this program should be of the form '1nn4s', where nn is a serial number, s the severity. If this form is chosen, the error codes will not interfere with any AGRIS error codes used in the checking cycle. In subroutine MESS (program VALID) the error text has to be added for each new error code.

3.3 AGRINTER Production

The AGRINTER production (see Fig. 2) is a separate program flow and very similar to the AGRINDEX production done in Vienna. The boxes marked by asterisks indicate programs available from Vienna, all other programs have to be written for AGRINTER need.

It will be the task of the computer specialist at IICA-CIDIA to assemble the existing programs with the new ones and to bring up the AGRINTER production.

It is estimated that at the beginning of 1976 all programs are ready except, probably, the title KWIC index, for which at the beginning the present procedure on the IBM 1130 could be used.

The following is a list of the names of the persons who were present at the meeting held on the 15th day of May, 1900, at the residence of Mr. J. H. ...

The meeting was held at the residence of Mr. J. H. ... at 7 o'clock P.M. ...

The following persons were present: ...

Mr. J. H. ...

Mr. W. H. ...

Mr. T. H. ...

Mr. R. H. ...

Mr. S. H. ...

Mr. L. H. ...

Mr. K. H. ...

Mr. M. H. ...

Mr. N. H. ...

Mr. O. H. ...

Mr. P. H. ...

Mr. Q. H. ...

Mr. R. H. ...

Mr. S. H. ...

Mr. T. H. ...

Mr. U. H. ...

Mr. V. H. ...

Mr. W. H. ...

Mr. X. H. ...

Mr. Y. H. ...

Mr. Z. H. ...

...

The following programs will be needed for the AGRINTER production:

- SELECT: This program replaces program HOLDBF and selects between documents for AGRIS and those for AGRINTER. Documents not to be published are sent to the bibliographic error file by means of 'hold cards'. In documents selected for AGRIS any bilingual data elements (tag 610) are reduced to English text only. The character set has to be reduced to the AGRIS set only (no diacriticals).
- KEYGEN*: Generation of the sort key, which allows to sort the AGRINTER file in the required sequence.
- SORT*: With sort exit for cross references.
- RNASGN*: RN assignment program.
- RNREL*: Treats the cross references for secondary subject categories and related TRN's.
- TRLATE: Program TRLATE has to translate the dates and the country and city names into Spanish and has to reduce tag 610 to the Spanish version only.
- GENCX*: Personal author and report number index generation (eventually without report numbers).
- CORPX*: Corporate author index generation.
- KWIC: Title KWIC index generation, to be developed in Turrialba.
- GENIAX*: Object code index generation.
- PRINT: Printing program for the bibliography, all indexes and the table of contents.
- CLRN* and CLTRN* Correspondence list RN-TRN and TRN-RN.

* Available from Vienna. Some of the programs have been brought to Turrialba, but have not been used.

The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in the organization's operations. This section also outlines the various methods and tools used to collect and analyze data, highlighting the role of technology in streamlining these processes.

The second part of the document focuses on the implementation of internal controls and risk management strategies. It details how these measures are designed to prevent fraud, reduce errors, and protect the organization's assets. The text also addresses the importance of regular audits and reviews to ensure that these controls remain effective and up-to-date.

The third part of the document discusses the role of the board of directors and senior management in overseeing the organization's financial health and strategic direction. It highlights the need for clear communication and collaboration between these groups to ensure that the organization is meeting its goals and obligations.

The fourth part of the document provides a detailed overview of the organization's financial statements, including the balance sheet, income statement, and cash flow statement. It explains how these statements are prepared and audited, and provides a clear understanding of the organization's financial performance over the reporting period.

The fifth part of the document discusses the organization's future outlook and strategic plan. It outlines the key challenges and opportunities facing the organization and provides a clear roadmap for achieving its long-term goals. This section also includes a discussion of the organization's commitment to sustainability and social responsibility.

The final part of the document provides a summary of the key findings and conclusions of the report. It reiterates the importance of maintaining accurate records and implementing strong internal controls, and expresses confidence in the organization's ability to continue to grow and succeed in the future.

3.4 Machine readable input from national centers

Whenever national centers are ready to provide machine-readable input, IICA-CIDIA should implement the program to accept data in this form. There is a program available from Vienna (CVMI), however, some changes are necessary according to AGRINTER/AGRIS requirements, e.g. to submit the information indicating whether the document belongs to AGRINTER or AGRINTER/AGRIS. It is recommended to enter this information into the tag 001. See also the format of tag 001 for AGRIS output tapes in 127.

4. Maintenance Problems and Set-up Instructions

4.1 Maintenance of tapes and disks

In this section some basic tasks in a computer center are described. Although the problems are trivial, it should be mentioned here, because IICA-CIDIA is just being introduced to a computerized operation.

4.1.1. Initialization of magnetic tapes

In an OS operating system environment only IBM standard labelled tapes should be used for internal purpose.

Therefore brand new tapes should be clearly identified outside and then labelled by computer (program IEHINITT).

The volume serial number for the large tapes should be 'IFnnnn', where nnnn is a serial number. The IF prefix serves for clear distinction from other tapes used in the computer centers.

THE HISTORY OF THE UNITED STATES

The history of the United States is a story of growth and change. From the first European settlers to the present day, the nation has expanded its territory and diversified its population. The early years were marked by the struggle for independence and the establishment of a new government. The middle years saw the westward expansion and the development of a strong industrial base. The late years have been characterized by the challenges of the world wars and the civil rights movement. The United States has always been a land of opportunity and innovation, and its history continues to shape the world today.

The early years of the United States were a time of great struggle and sacrifice. The colonists fought for their rights and eventually won their independence from Great Britain. The new nation was founded on the principles of liberty and justice for all. The early years were also a time of westward expansion, as settlers moved across the continent in search of new opportunities. The discovery of gold in California and the opening of the transcontinental railroad were major events that shaped the nation's future.

The middle years of the United States were a time of rapid growth and change. The industrial revolution brought new technologies and methods of production, leading to a dramatic increase in the nation's economic power. The westward expansion continued, as settlers moved across the continent in search of new opportunities. The discovery of gold in California and the opening of the transcontinental railroad were major events that shaped the nation's future.

The late years of the United States have been a time of great challenges and triumphs. The world wars brought the United States into the global arena and established it as a superpower. The civil rights movement fought for equality and justice for all. The United States has always been a land of opportunity and innovation, and its history continues to shape the world today.

For the minireels the identification IFSnnn is suggested. 25 tapes (2400 feet) have already been delivered, they have been labelled and initialized by computer and stored in the University computer room.

4.1.2. Tape index

Two manual tape indexes (with index cards) have been initiated, one index by reel number, the other by subject. The tape index gives information about the status of the magnetic tapes, the content, the creation date, etc. Appendix V lists the tape index for the tapes IF0001 to IF0025.

4.1.3. Initialization of disk packs

One disk pack will be ordered by IICA-CIDIA. It has to be initialized under OS (program IHEDASDR), the suggested volume serial number is 'IICAnn', nn being a serial number 01 to 99.

4.2 Computer Request Form

A computer request form has been designed (Appendix IV) which is submitted together with the data cards. A copy of this form is kept in Turrialba which serves for checking the processing of the requested computer runs. Jobs requested by IICA-CIDIA may be 'New Input', 'Update', 'Final Check' or 'Tape to Vienna' with 'New Cycle Restart'.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author details the various methods used to collect and analyze the data. This includes both manual and automated processes. The manual process involves reviewing each entry individually, while the automated process uses software to identify patterns and anomalies.

The third section describes the results of the analysis. It shows that there are several areas where the data is inconsistent or incomplete. These areas need to be investigated further to determine the cause of the discrepancies.

Finally, the document concludes with a series of recommendations. These include implementing stricter controls over data entry, improving the accuracy of the automated systems, and conducting regular audits to ensure the integrity of the data.

4.3 Set-up Instructions

4.3.1 Job XIAS001 - Restore

Job XIAS001 restores the data files from the last backup tape (XIA.CUM.GnnnnV00) onto disk. This job has to be executed before rerunning one of the other jobs. If the last backup tape is incorrect one has to set the system catalog to the previous last backup tape (IEHPROGM with UNCATLG and CATLG).

Run time: 5'

Data cards: UNCATLG DSNAME=XIA.CUM.GnnnnV00

CATLG DSNAME=XIA.CUM.GnnnnV00,VOL=2400=IFnnnn

Job is rerunable.

4.3.2 Job XIAS002 - New Cycle Restart

This job has to run after job XIAS008. It increments the volume/issue number of the output listing, and lists all documents not processed in XIAS008 (i.e. all documents of the last checking cycle which due to an error could not be mailed to Vienna).

At the same time it removes the documents mailed to Vienna from the cycle.

It lists all withdrawn documents from the previous cycle under run zero.

Only after XIAS002 the data files are ready to accept new input or update runs.

Run time: 15'

Data cards: none

MEMORANDUM

TO : [Illegible]

[Illegible text block]

[Illegible text block]

[Illegible text block]

[Illegible text block]

[Illegible text block]

[Illegible text block]

[Illegible text block]

Creates a new backup tape with a list file (to be printed with AGRINTER train). Job is not rerunable (if repetition necessary, run XIAS001 before).

4.3.3 Job XIAS004 - New Input

Job XIAS004 reads new input data, checks it and adds it to the bibliographic file and to the bibliographic error file.

Run time: 15' - 60' (depending on the number of input cards).

Data cards: Input data (the first card must be '000
CARD INPUT START').

Creates a new backup tape with list file. Job is not rerunable (if repetition necessary, run XIAS001 before).

4.3.4 Job XIAS005 - Update

Job XIAS005 reads update cards and performs an update operation.

Run time: 30'

Data cards: Input data (the first card must be '000
CARD INPUT START').

Creates a new backup tape with list file (to be printed with AGRINTER train). Job is not rerunable (if repetition necessary, run XIAS001 before).

4.3.5 Job XIAS007 - Final Check

Job XIAS007 checks all data of the bibliographic file and prints a listing of all TRN's ready for production. Any severe errors in these documents force the document to be routed to the bibliographic error file.

1. The first part of the document is a letter from the author to the editor.

2. The second part is a letter from the editor to the author.

3. The third part is a letter from the author to the editor.

4. The fourth part is a letter from the editor to the author.

5. The fifth part is a letter from the author to the editor.

6. The sixth part is a letter from the editor to the author.

7. The seventh part is a letter from the author to the editor.

8. The eighth part is a letter from the editor to the author.

9. The ninth part is a letter from the author to the editor.

10. The tenth part is a letter from the editor to the author.

11. The eleventh part is a letter from the author to the editor.

12. The twelfth part is a letter from the editor to the author.

13. The thirteenth part is a letter from the author to the editor.

14. The fourteenth part is a letter from the editor to the author.

15. The fifteenth part is a letter from the author to the editor.

16. The sixteenth part is a letter from the editor to the author.

17. The seventeenth part is a letter from the author to the editor.

18. The eighteenth part is a letter from the editor to the author.

19. The nineteenth part is a letter from the author to the editor.

20. The twentieth part is a letter from the editor to the author.

21. The twenty-first part is a letter from the author to the editor.

22. The twenty-second part is a letter from the editor to the author.

23. The twenty-third part is a letter from the author to the editor.

24. The twenty-fourth part is a letter from the editor to the author.

25. The twenty-fifth part is a letter from the author to the editor.

26. The twenty-sixth part is a letter from the editor to the author.

27. The twenty-seventh part is a letter from the author to the editor.

28. The twenty-eighth part is a letter from the editor to the author.

29. The twenty-ninth part is a letter from the author to the editor.

30. The thirtieth part is a letter from the editor to the author.

Run time: 30'

Data cards: none

Creates a new backup tape with list file (to be printed with AGRINTER train). Job is not rerunable (if repetition necessary, run XIAS001 before).

4.3.6 Job XIAS008 - AGRIS Tape Production

Job XIAS008 prepares an AGRIS tape for Vienna with all documents from the bibliographic file. Some documents may be manually retained by supplying data cards with the TRN number in card column 1-9. The small tape for Vienna will be submitted with the computer request form. Creates an AGRIS archive copy (IF0011 to IF0022).

Run time: 20'

Data cards: TRN's to be held back (cc 1-9).

Creates a new backup tape with list file (to be printed with any train). Job is not rerunable (if repetition necessary, run XIAS001 before).

Control cards: Insert volume serial number for AGRIS archive copy, and the volume serial number for the small tape to Vienna.

The computer listing and the small tape are to be sent to Turrialba.

4.3.7 Jobs to be run when no private disk available.

- XIASSCRA Scratch VTOC on disk labelled 444444,
Allocate disk spaces.
- XIASREST Restore libraries from tape IF0024.

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- XIAS001 Restore AGRIS data from last backup tape
(IF0001-IF0010)

Whenever the program libraries have been changed, job

- XIASSAVE writes a new library tape (IF0024-IF0025).

4.4 Implementation of a new print train

As soon as the new print train has arrived, the use of the print train must be prepared. An UCS buffer has to be loaded into SYS1.SVCLIB or SYS1.IMAGELIB*as member UCS1xx, where xx may be any letter combination. A meaningful abbreviation would be AT for AGRINTER Train.

```
// EXEC          ASMFCL
// ASM.SYSIN     DD *
UCS1AT          CSECT
                DC          x'00'
                DC          AL1(2)    2 LINES PRINTED
                DC          AL1(120)  OF 120 CHARACTERS
                DC          AL1(120)    POSITION
                DC          C'xxxx   x'   1-30
                DC          C'          '   31-60
                DC          C'          '   61-90
                DC          C'          '   91-120
                DC          C'          '  121-150
                DC          C'          '  151-180
                DC          C'          '  181-210
                DC          C'          '  211-240
                END
```

```
//LKED.SYSLMOD DD DSN=SYS1.IMAGELIB (UCS1AT),DISP=OLD
```

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author details the various methods used to collect and analyze the data. This includes both manual and automated processes. The goal is to ensure that the data is as accurate and reliable as possible.

The third part of the document focuses on the results of the analysis. It shows that there is a clear trend in the data, which is consistent with the initial hypothesis. This finding is significant and warrants further investigation.

Finally, the document concludes with a summary of the key findings and a list of recommendations. It suggests that the current methods are effective but could be improved in certain areas. The author also notes that the data is still being analyzed and that more results will be published in the future.

The following table provides a detailed breakdown of the data collected over the course of the study. Each row represents a different category, and the columns show the number of occurrences for each sub-category.

Category	Sub-Category 1	Sub-Category 2	Sub-Category 3
Group A	15	20	10
Group B	12	18	8
Group C	10	15	7
Group D	8	12	6
Group E	6	10	5
Group F	5	8	4
Group G	4	6	3
Group H	3	5	2
Group I	2	4	1
Group J	1	3	1

The data shows a clear downward trend in the number of occurrences across the different groups. This is consistent with the hypothesis that the frequency of the event decreases as the group number increases.

whereby xxx....x means the sequence of characters on the print train according to position 1-30, 31-60 etc. See IBM System Reference Library: OS System Programmer's Guide. The actual change of the print train is done by the following operator commands (OS MFT).

P WTR

S WTR.PO,OOE,,X,UCS=(AT,,VERIFY) where x means the output class to be printed with the AGRINTER train.

When the mount request appears, the operator has to change the train and to reply;

R OO,'AT'

When the verification request appears the operator should check the two printed lines and then reply R OO,'V'

In order to print the AGRIS/AGRINTER listings with the new print train one prints the file XIA.LIST (6th file on the backup tape IF0001-IF0010), with either program IEBGENER (if the printer accepts the variable length format (OS MFT), or with a small program changing the blocking from VBA (variable blocked with ASA control) to FA (fixed unblocked with ASA control) (for OS PCP).

4.5 Implementation of private disk pack

After initialization of the disk pack all catalog entries to the system disk with main index have to be deleted by UNCATLG (for catalogued data sets) and DLTX (for index entries and generation data sets) (program IEHPROGM). As soon as DLTX INDEX=XIA has been successfully executed, one can build a private catalogue on the private disk, connect it to the system catalogue (CONNECT) and

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author details the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The analysis focuses on identifying trends and patterns over time, which is crucial for making informed decisions.

The third part of the document provides a comprehensive overview of the results obtained from the study. It includes several key findings that have significant implications for the field. The data shows a clear upward trend in certain areas, while others remain relatively stable.

Finally, the document concludes with a series of recommendations based on the findings. These suggestions are designed to help improve the current state of affairs and to address any identified issues.

CONCLUSION

In conclusion, the study has provided valuable insights into the current situation. The findings suggest that there is a need for more robust data collection and analysis methods. It is hoped that these recommendations will be implemented to achieve better results in the future.

The author would like to thank the following individuals for their assistance and support during the course of this research:

build all index structures there (see job XIASGE02 in report [4]). From then on the AGRIS system disk is completely independent from the present operating system (except the CONNECT operation). See also program IEHPRGM in the OS utility manual [6].

4.6 Keypunch instructions for worksheets

4.6.1 New Input

An IBM 29 keyboard machine has been chosen as input equipment for the first two years. After that period of time the input problem should be reconsidered and probably exchanged with a more effective way of keying (e.g. on-line data entry via terminals). The original paper-tape format has been chosen (see IAEA INIS-8 [3])

	T		C	
TAG	A	Text	R	for a new tag
	B			

and

	T		C	
A	Text	R		for a continuation line
	B			

or

Text	C			for a continuation line.
	R			

For a continuation card the line breaking rules described in IAEA INIS-8 are to be used, or the card is punched until column 80 and continued in column 1 of the following card without omitting any spaces between words.

In all other cases the carriage-return character should not be forgotten, otherwise all spaces, until column 80, would be included in the text field.

The first of these is the fact that the
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The seventh is the fact that the

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policy for the future.

Each document starts with the tag 001 and ends with the end-of-document sign (@). Tag 001 is punched only once, and not repeated on the second or third page of a worksheet. It is recommended to mark the cards belonging to one document by ink with the TRN number.

The character set used on the IBM 29 consists of control characters and the text characters.

Control characters are:

T		
A	0-2-8	(numeric on the T-key)
B		
C		
R	¢	(dollar-cent: numeric on the R-key)
Upper case shift	|	(logical or)
Lower case shift	¬	(logical not)
end-of-document	@	(commercial at)
#		for special encoding (see below encoding for <u>¬</u>)

For AGRINTER diacriticals: an underscore (_) preceding the letter generates the following diacriticals (not yet implemented in the programs):

|_N	for	Ñ	¬_I	for	í
¬_N	for	ñ	¬_O	for	ó
¬_A	for	á	¬_U	for	ú
¬_E	for	é			

Note that the upper (|) and lower (¬) case shift character is valid until the next shift character, whereas the underscore

1. The first part of the document is a list of names and addresses.

2. The second part of the document is a list of names and addresses.

3. The third part of the document is a list of names and addresses.

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10. The tenth part of the document is a list of names and addresses.

11. The eleventh part of the document is a list of names and addresses.

12. The twelfth part of the document is a list of names and addresses.

13. The thirteenth part of the document is a list of names and addresses.

14. The fourteenth part of the document is a list of names and addresses.

15. The fifteenth part of the document is a list of names and addresses.

16. The sixteenth part of the document is a list of names and addresses.

17. The seventeenth part of the document is a list of names and addresses.

18. The eighteenth part of the document is a list of names and addresses.

19. The nineteenth part of the document is a list of names and addresses.

20. The twentieth part of the document is a list of names and addresses.

21. The twenty-first part of the document is a list of names and addresses.

22. The twenty-second part of the document is a list of names and addresses.

23. The twenty-third part of the document is a list of names and addresses.

24. The twenty-fourth part of the document is a list of names and addresses.

25. The twenty-fifth part of the document is a list of names and addresses.

26. The twenty-sixth part of the document is a list of names and addresses.

27. The twenty-seventh part of the document is a list of names and addresses.

28. The twenty-eighth part of the document is a list of names and addresses.

29. The twenty-ninth part of the document is a list of names and addresses.

30. The thirtieth part of the document is a list of names and addresses.

(_) is valid for the next character only. Digits and special characters are not influenced by any shift character. Tag 001 to 009 may be punched in either shift mode.

The complete AGRINTER/AGRIS character set is punched in the following way:

0 to 9, all specials (except <u> </u>)	direct keying
A to Z	upper case shift + direct keying
a to z	lower case shift + direct keying
<u> </u> and <u> </u>	special encoding as #(# and #)#
ñ Ñ á é í ó ú	special encoding by prefixing with underscore

Example: 100 Vallejo Meja, H. is punched as

 T
 100A#V-ALLEJO #M#EJA, #H#.
 B

It is recommended to start each tag field for tags ≥ 100 with the correct shift character.

When the AGRINTER modifications come into action tag 001 should be prolonged to carry the AGRINTER/AGRIS information:

e.g. IF7500009A/B for AGRINTER/AGRIS

and IF7500010A for AGRINTER only.

4.6.2. Update . . .

Updates cards are punched in the same way as new input with the following exceptions:

- The run number must be given at the beginning of a run (one run is one batch of new input data).
- Several runs can be updated in one operation.

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- The update action is suffixed to the TRN number (U for update, R for replace, W for withdraw, G for go or good). A special format has to be designed when Agrinter comes in operation (see 4.6.1).
- Only those data elements are punched which are incorrect, whereby for tags 100 the level in which the tag appears must be given as well.

See also: Rules for Bibliographic Update [5].

Part 3: Future Aspects of the Use of AGRINTER/AGRIS Files

As soon as the AGRINTER/AGRIS production becomes fully computerized many possibilities are open to use the AGRINTER or AGRIS master files for selective dissemination of information (SDI services) or retrospective searches.

Many software packages exist which allow computer searches on these kind of data.

Primarily one has to distinguish between two search strategies:

- batch mode operation or
- interactive systems (with terminals)

whereby as search-keys either

- free-text searches or
- search on controlled vocabulary comes into consideration.

For batch-mode operation and controlled vocabulary serves the IBM system IRMS (Information Retrieval Management System) written for the IBM 360 or 370 under operating system DOS. For INIS files the necessary interface programs [7] have been written in Vienna. In August 1974 it has been converted to OS [8]. It is used for SDI services for the INIS data files and will be made

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compatible with the AGRIS data file in the near future.

Since IRMS requires a controlled vocabulary, the following search items can only be used with AGRIS.

- Object code or text
- Geographic code or text
- Subject category
- Literary indicators
- Type of record
- Volume/issue number
- Language

As operand between the search items serve the logical (Boolean) operators: OR, AND, AND NOT.

The program for AGRIS files will be available in August 1975 (machine requirement: 1 magnetic tape, disk space on IBM 2314 or 3330, programming language Assembler, interface programs in PL/I(F)).

IRMS as an interactive system under OS is now available from IBM as a program product (to be rented on a monthly basis).

As an example for an interactive system with free-text search strategy IBM offers the STAIRS system (Storage and Information Retrieval System) which runs as an applications program under the terminal system CICS (Customer Information Control System). Both systems are program products (monthly rent: about 1000\$ for CICS, 700\$ for STAIRS).

STAIRS allows to search on all tag fields using free-text search strategy whereby in addition to the Boolean operators OR, AND, AND NOT the new operators may be used: ADJ for adjacent, SAME for restriction of the AND operation to the same paragraph (e.g. same tag field) etc.

„... „Přesvědčení, že všechny problémy lze vyřešit, že každý člověk má právo na život, že každý člověk má právo na práci, že každý člověk má právo na volbu svého povolání, že každý člověk má právo na vlastní domov, že každý člověk má právo na vlastní život.““

„... „Když jsem byl mladý, jsem byl velmi optimistický. Myslel jsem, že všechno lze vyřešit, že každý člověk má právo na život, že každý člověk má právo na práci, že každý člověk má právo na volbu svého povolání, že každý člověk má právo na vlastní domov, že každý člověk má právo na vlastní život.““

„... „Když jsem byl mladý, jsem byl velmi optimistický. Myslel jsem, že všechno lze vyřešit, že každý člověk má právo na život, že každý člověk má právo na práci, že každý člověk má právo na volbu svého povolání, že každý člověk má právo na vlastní domov, že každý člověk má právo na vlastní život.““

„... „Když jsem byl mladý, jsem byl velmi optimistický. Myslel jsem, že všechno lze vyřešit, že každý člověk má právo na život, že každý člověk má právo na práci, že každý člověk má právo na volbu svého povolání, že každý člověk má právo na vlastní domov, že každý člověk má právo na vlastní život.““

„... „Když jsem byl mladý, jsem byl velmi optimistický. Myslel jsem, že všechno lze vyřešit, že každý člověk má právo na život, že každý člověk má právo na práci, že každý člověk má právo na volbu svého povolání, že každý člověk má právo na vlastní domov, že každý člověk má právo na vlastní život.““

„... „Když jsem byl mladý, jsem byl velmi optimistický. Myslel jsem, že všechno lze vyřešit, že každý člověk má právo na život, že každý člověk má právo na práci, že každý člověk má právo na volbu svého povolání, že každý člověk má právo na vlastní domov, že každý člověk má právo na vlastní život.““

„... „Když jsem byl mladý, jsem byl velmi optimistický. Myslel jsem, že všechno lze vyřešit, že každý člověk má právo na život, že každý člověk má právo na práci, že každý člověk má právo na volbu svého povolání, že každý člověk má právo na vlastní domov, že každý člověk má právo na vlastní život.““

As example for an interactive system with a kind of free text search on specific tag fields (e.g. authors) serves the RECON system (remote consol system), developed by the US software firm LOCKHEAD for NASA. This system is used at present time at the Oakridge Research National Laboratory, ORNL, and at the European Space Research Organization, ESRO (Rome (Italy) and Darmstadt (F. R. Germany)).

For non-IBM computers also exist many retrieval systems (GOLEM for SIEMENS computers, etc.). Several of the INIS inputting centers (e.g. Zentralst. f. Atom-Energetic Dokumentation, ZAED) are operating an SDI service for its users, some of them might even face the problem of retrospective searches. Many of these programs are available free of charges.

The problem of the retrospective searches are basically identical with the problems of SDI, however different program logics, are necessary since with retrospective searches the number of documents and therefore the required disk space are very high, so that sometimes it is impossible to hold all documents simultaneously online.

Furthermore, with retrospective searches another problem is encountered due to the fact that the data bank is to be updated on a regular basis (e.g. monthly).

It will be the task of the computer specialist, as soon as the input problems are solved, to study the feasibility of using any existing software packages to provide the users in Latin-American countries with useful SDI services or retrospective searches.

Note: The author wishes to apologize if in this chapter all given information is not completely correct, due to the fact that there was no literature available in Turrialba when this report was done.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. These include direct observation, interviews with key personnel, and the use of specialized software tools. Each method has its own strengths and limitations, and they are often used in combination to provide a comprehensive view of the situation.

The third section details the findings of the study. It shows that there are significant discrepancies between the reported data and the actual recorded transactions. These discrepancies are most pronounced in the areas of inventory management and financial reporting. The reasons for these errors are discussed, including human error, lack of training, and outdated systems.

Finally, the document concludes with a series of recommendations for improving the data collection and reporting process. These include implementing more robust internal controls, providing regular training for staff, and investing in modern, reliable software solutions. The author believes that these steps are essential for ensuring the accuracy and integrity of the organization's data.

Prepared by: [Name] | Date: [Date] | Page 1 of 1

ACKNOWLEDGMENTS

This report is the result of a one month work at IICA-CIDIA in Turrialba, Costa Rica. The consultation was financed by the International Development Research Center, IDRC, Canada. Valuable cooperation in preparing the schedule, described in part 1, is acknowledged to Ronald Archer from IDRC who has been present at Turrialba during one week of the consultation period.

The good cooperation and the continuous assistance of all the staff members at IICA-CIDIA, especially of Maria Dolores Malugani, Director of the Center, and of Hugo Cáceres, are very much appreciated. Without the willingness of the Center to accept a new way of AGRINTER/AGRIIS production the complete project could never be started.

Special thanks are given to Olga Lendvay for all the fruitful discussions during the time in Turrialba and for all her work on editing this report.

Appendix A

Item	Description	Value
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FAO/AGRIS 4 Guidelines for Bibliographic Description
FAO/AGRIS 7 Magnetic Tape Specification and Record Format
FAO/AGRIS 8 Magnetic Tape Codes and Character Sets

[3] INIS Reference Series:

IAEA-INIS-7 Magnetic and Punched Paper Tape Codes and Character Sets
IAEA-INIS-8 Paper Tape Specifications and Record Format
IAEA-INIS-9 Magnetic Tape Specifications and Record Format
IAEA-INIS-14 Description of Computer Programs

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AGRIS Software Description (unpublished, available at IAEA, Vienna)

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available at IAEA, Vienna)

[6] IBM Reference Series - OS System Manuals:

OS Job Control Language
OS Job Control Language - User's Guide
OS PL/I (F) Language Reference
OS PL/I (F) Programmer's Guide
OS Utilities
OS Sort/Merge Program (standard programs, not program product)
OS Tape Labels
OS System Programmer's Guide
OS Messages and Codes
OS Assembler (F)
OS Assembler (F), Programmer's Guide
System /360 Principles of Operation

(Note: The titles might be slightly different, since there was no
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(for operating system OS, in preparation).

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Figure captures:

Fig. 1: AGRIS Checking Cycle

Fig. 2: AGRINTER/AGRIS Checking Cycle and AGRINTER Production (part 1 and 2).

Appendix I: Computer installations at Costa Rica (February 1975)

Appendix II: Proposed print train arrangement

Appendix III: Job description for computer specialist

Appendix IV: Computer request form.

Appendix V : Tape index for tapes IF0001 to IF0025.

Appendix VI: EBCDIC table for INIS/AGRIS/AGRINTER/PLI character set.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

Appendix I: COMPUTER FACILITIES IN COSTA RICA

A. IBM DATA CENTER

1. Computer: IBM 360/25

Core memory: 48 K

2. Direct Access Storage Facility: IBM 2311

3 Drives using removable disk packs of capacity of 7 1/2 million bytes each

3. Magnetic Tapes:

3 Drives 9 tracks - 800, 1600 b.p.i.
1 Drive 7 tracks - 200, 556, 800 b.p.i

4. Card Reader: IBM 2540 (1000 c.p.m.)

5. Printer: IBM 1403 (1100 lines/min.)

Standard Print Train (60 character set), no. UCS feature

6. Cost: US\$100/hour

7. Operating System: DOS

B. SEDCA (Sistema Electrónico de Datos y Ciencias Administrativas)

System I:

1. Computer: IBM 360/30

Core memory 65 K

2. Direct Access Storage Facility: IBM 2311

3 Drives using removable disk packs of capacity of 7 1/2 million bytes each

3. Magnetic Tapes:

3 Drives 9 tracks - 800 b.p.i.

4. Card Reader: IBM 2540 (1000 c.p.m.)

5. Printer: IBM 1403 (1100 lines/min.) model N1, with UCS feature

Standard RN Print Train (52 char set)

6. Cost: US\$95/hour

7. Operating System: DOS

CHICAGO, ILL.

DEPARTMENT OF CHEMISTRY

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System II:

1. Computer: IBM 360/40
Core memory: 256 K
2. Direct Access Storage Facility: IBM 2311
7 Drives using removable disk packs of capacity
of 7 1/2 million bytes each
(8 drives 2314 end of 1975 planned)
3. Magnetic Tapes:
4 Drives 9 tracks - 800 b.p.i
4. Card Reader: IBM 2540 (1000 c.p.m.)
5. Printer: IBM 1403 (1100 lines/min.) model N1, with UCS feature.
Standard RN Print Train (52 char. set)
6. Cost: US\$95/hour blocktime
7. Operating System OS (MFT, 2 partitions 90 K, 88 K), PL/I(F)

C. UNIVERSITY OF COSTA RICA

1. Computer: IBM 360/40 Model GF-40
Core memory: 196.608 bytes
2. Direct Access Storage Facility: IBM 2314-A
5 Drives using removable disk packs of 29.17×10^6
bytes/package
3. Magnetic Tapes 2401-4
4 Drives 9 tracks - 800, 1600 b.p.i.
4. Card Reader: IBM 2540 (1000 c.p.m.)
5. Printer IBM 1403 (600 lines/min.) model 2, no. UCS, no exchangable
print chain
6. Operating System DOS and OS (PCP, 170 K partition) PL/I (F)

D. INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES

1. Computer: IBM 1130
Core memory: 8 K
2. Monitor Disk IBM 2315 (512.000 bytes)
3. Card Reader: IBM 1442 (300 c.p.m.)
4. Printer: IBM 1132 (120 lines/min.)

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both manual and automated processes. The goal is to ensure that the data is as accurate and reliable as possible.

The third part of the document provides a detailed breakdown of the results. It shows that there has been a significant increase in sales over the period covered. This is attributed to several factors, including improved marketing strategies and better customer service.

Finally, the document concludes with a series of recommendations for future actions. It suggests that the company should continue to invest in its marketing efforts and focus on providing excellent customer service to maintain and grow its market share.

† The card punched of the Uf

CARD PUNCH CODE

† CARD COLUMN

TRAIN SLUG PART NO.

GRAPHIC

CHAIN SLUG PART NO.

CHAIN OR TRAIN POSITION

CARD PUNCH CODE

† CARD COLUMN

TRAIN SLUG PART NO.

GRAPHIC

CHAIN SLUG PART NO.

CHAIN OR TRAIN POSITION



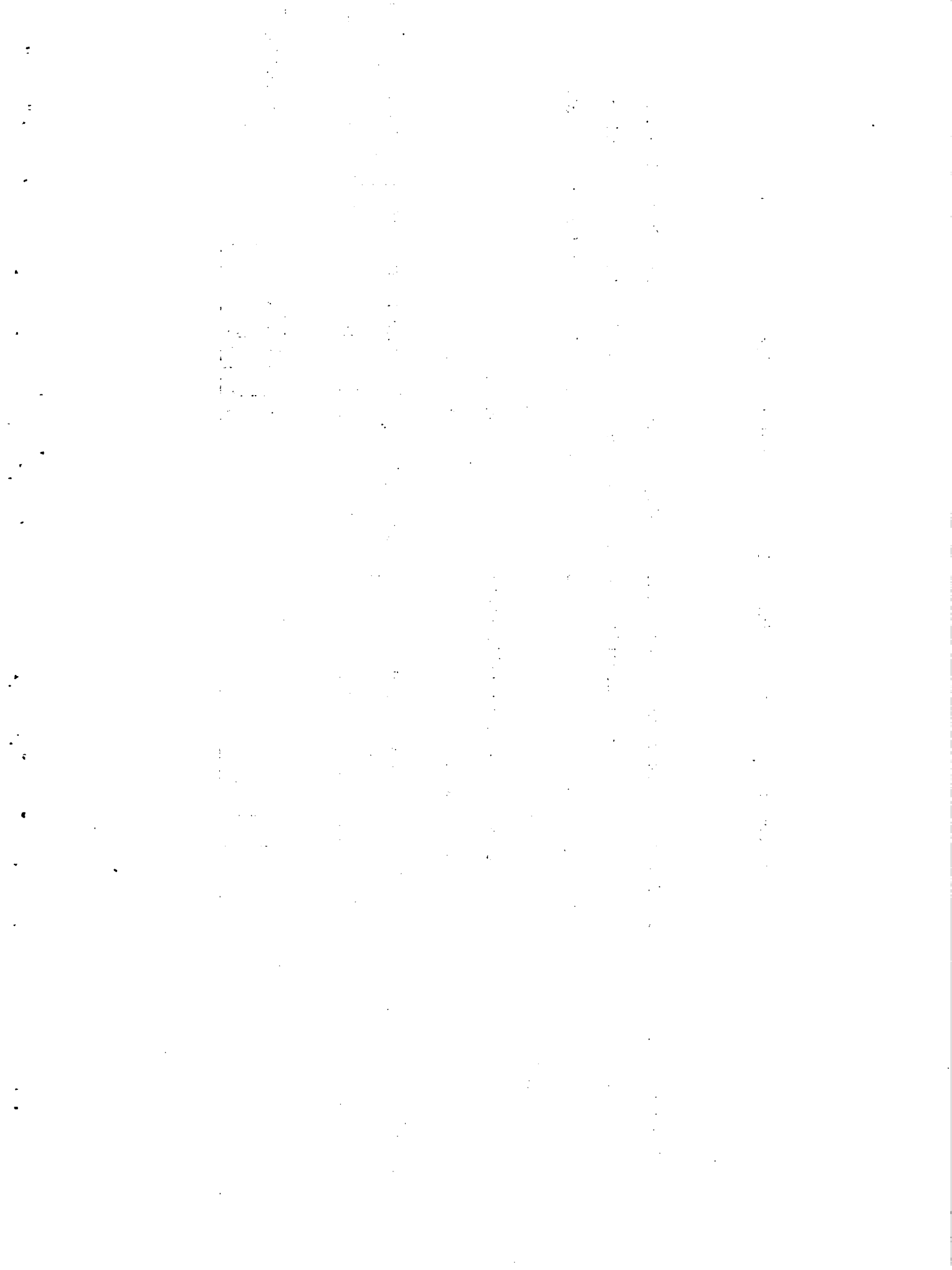
Appendix II: Proposed print train arrangement (modification of the TN-5 train)

The first line indicates the printed character, the second line the slug number. It is possible that IBM exchanges the order of the slugs because of print speed considerations. Slug 25, 36, 39, 40, 48, 70, 79, and 80 contain non-IBM-characters (Ñ ñ á é í ó ú). Slug 25, 28, 29, 36, 39, 40, 48, 68, 69, 70, 79, and 80 are not IBM standard slugs.

Character preference:	# _ e 7	once
	0 to 9 , é = . / - " : + ' () ? ! ; \$ * % Ñ ñ á é í ó ú < > [ ] |	two times
	A to Z and a to z	three times

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																			
/	S	T	U	V	W	X	Y	Z	,	#	É	J	K	L	M	N	O	P	Q	R	-	"	:	;	\$	*	%	<	>	[]		!	?	;	\$	*	%	<	>	[]		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Á	É	Í	Ó	Ú

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																			
/	S	T	U	V	W	X	Y	Z	,	#	É	J	K	L	M	N	O	P	Q	R	-	"	:	;	\$	*	%	<	>	[]		!	?	;	\$	*	%	<	>	[]		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Á	É	Í	Ó	Ú



Appendix III.

Job Description

Title: Computer specialist for AGRINTER/AGRIS processing

Duty Station: Turrialba

Salary:

2 years contract

Description of duties:

In General: System Analysis and non-numeric computer programming carried out on IBM/360 model 40 operating system OS, programming language PL/I and Assembler, to produce the Latin American agricultural information system (AGRINTER) and the input for the worldwide agricultural information system (AGRIS)

In Detail: -to supervise the AGRINTER/AGRIS computer processing in cooperation with the University of Costa Rica and the staff of CIDIA

-to maintain the existing software for AGRIS, in cooperation with AGRIS input unit in Vienna, and perform program modifications as requested by staff of CIDIA

-to develop new programs for AGRINTER production to be compatible with the AGRIS production flow

-to assist in the AGRINTER/AGRIS data preparation

-to study the possibilities of SDI services or other computer oriented projects

-to cooperate and assist other Latin American input centers in participating in the AGRINTER/AGRIS system

Qualifications:

University degree in information or computer sciences or other equivalent studies; 3 to 5 years experience in computer programming of at least medium size computers in high level languages and Assembler.

Knowledge of IBM/360 or/370 under operating system OS and with programming languages PL/I and Assembler preferred.

Working knowledge of Spanish and English required.

1. The first part of the document discusses the importance of maintaining accurate records.

2.

3. The second part of the document discusses the importance of maintaining accurate records.

4. The third part of the document discusses the importance of maintaining accurate records.

5. The fourth part of the document discusses the importance of maintaining accurate records.

6. The fifth part of the document discusses the importance of maintaining accurate records.

7. The sixth part of the document discusses the importance of maintaining accurate records.

8. The seventh part of the document discusses the importance of maintaining accurate records.

9. The eighth part of the document discusses the importance of maintaining accurate records.

10. The ninth part of the document discusses the importance of maintaining accurate records.

11. The tenth part of the document discusses the importance of maintaining accurate records.

12. The eleventh part of the document discusses the importance of maintaining accurate records.

Appendix IV

IICA-CIDIA

ORDEN DE TRABAJO PARA COMPUTADORA

1. Título:
 2. Código de trabajo:
 3. Fecha de envío:
 4. Fecha de devolución:
 5. Número aproximado de tarjetas:
 6. Cinta sometida:
 7. Número de volumen:
 8. Responsable en Turrialba: Tel.:
-

PARA USO DEL CENTRO DE COMPUTO

9. Fecha de proceso:
10. Backup Tape:
11. Responsable:

1. Introduction

2. Methodology

3. Results

4. Discussion

5. Conclusion

6. References

7. Appendix

8. Index

9. Glossary

10. Summary

11. Notes

12. Acknowledgements

13. Author Biographies

14. Correspondence

15. Contact Information

16. Disclaimer

17. Copyright

Appendix V: Tape Index for tapes IF0001 to IF0025

IF0001

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} AGRIS checking cycle backup tape

} AGRIS archive copies for the first 12 tapes sent to Vienna

IF0023

Copy of all source program cards (status of 24 Feb. 1975)

IF0024

Tape copy of program libraries for XIA.HEXLIB, XIA. LINKLIB, XIA. COPYLIB, XIA. DATA

IF0025

Security copy of IF0024, to be kept in Turrialba (about 10 hours computer time is required to generate IF0024 from tape IF0023!)

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Appendix VI: EBCDIC Table for INIS/AGRIS/AGRINTER/PLI character set
(arranged in column order)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	FS				SP		-	0				0	+	-		0
1						/	1	a	j			1	A	J		1
2						á	2	b	k	s		2	B	K	S	2
3						é	3	c	l	t		3	C	L	T	3
4					•	í	4	d	m	u		4	D	M	U	4
5					ñ	ó	5	e	n	v		5	E	N	V	5
6					ñ	ú	6	f	o	w		6	F	O	W	6
7					•	•	7	g	p	x		7	G	P	X	7
8				→	√	√	8	h	q	y		8	H	Q	Y	8
9				[	]	♂	9	i	r	z		9	I	R	Z	9
A					♀	:	•	v								
B				.	\$	,	#	β	ε							
C				*	%	@	δ	π								
D				(	)	•	'	Δ	Σ							
E				+	;		=	Λ	ω							
F				ε	γ	?	"	μ	Ω							

FS ... field separator (end of text field)

SP ... space

• ... underscore (used for illegal characters)

• ... overscore (used for special encoding with INIS)

• ... underscore (used for special encoding with INIS)

• ... AGRINTER diacriticals

Example 1: A bag contains 10 marbles. There are 3 red marbles, 4 blue marbles, and 3 green marbles. What is the probability of drawing a red marble?

Solution: The probability of drawing a red marble is $\frac{3}{10}$.

Example 2: A bag contains 10 marbles. There are 3 red marbles, 4 blue marbles, and 3 green marbles. What is the probability of drawing a blue marble?

Solution: The probability of drawing a blue marble is $\frac{4}{10}$.

Example 3: A bag contains 10 marbles. There are 3 red marbles, 4 blue marbles, and 3 green marbles. What is the probability of drawing a green marble?

Solution: The probability of drawing a green marble is $\frac{3}{10}$.

Example 4: A bag contains 10 marbles. There are 3 red marbles, 4 blue marbles, and 3 green marbles. What is the probability of drawing a marble that is not red?

Solution: The probability of drawing a marble that is not red is $\frac{7}{10}$.

Example 5: A bag contains 10 marbles. There are 3 red marbles, 4 blue marbles, and 3 green marbles. What is the probability of drawing a marble that is not blue?

Solution: The probability of drawing a marble that is not blue is $\frac{7}{10}$.

Example 6: A bag contains 10 marbles. There are 3 red marbles, 4 blue marbles, and 3 green marbles. What is the probability of drawing a marble that is not green?

Solution: The probability of drawing a marble that is not green is $\frac{7}{10}$.

Example 7: A bag contains 10 marbles. There are 3 red marbles, 4 blue marbles, and 3 green marbles. What is the probability of drawing a marble that is not red, blue, or green?

Solution: The probability of drawing a marble that is not red, blue, or green is $\frac{0}{10}$.

Example 8: A bag contains 10 marbles. There are 3 red marbles, 4 blue marbles, and 3 green marbles. What is the probability of drawing a marble that is red, blue, or green?

Solution: The probability of drawing a marble that is red, blue, or green is $\frac{10}{10}$.

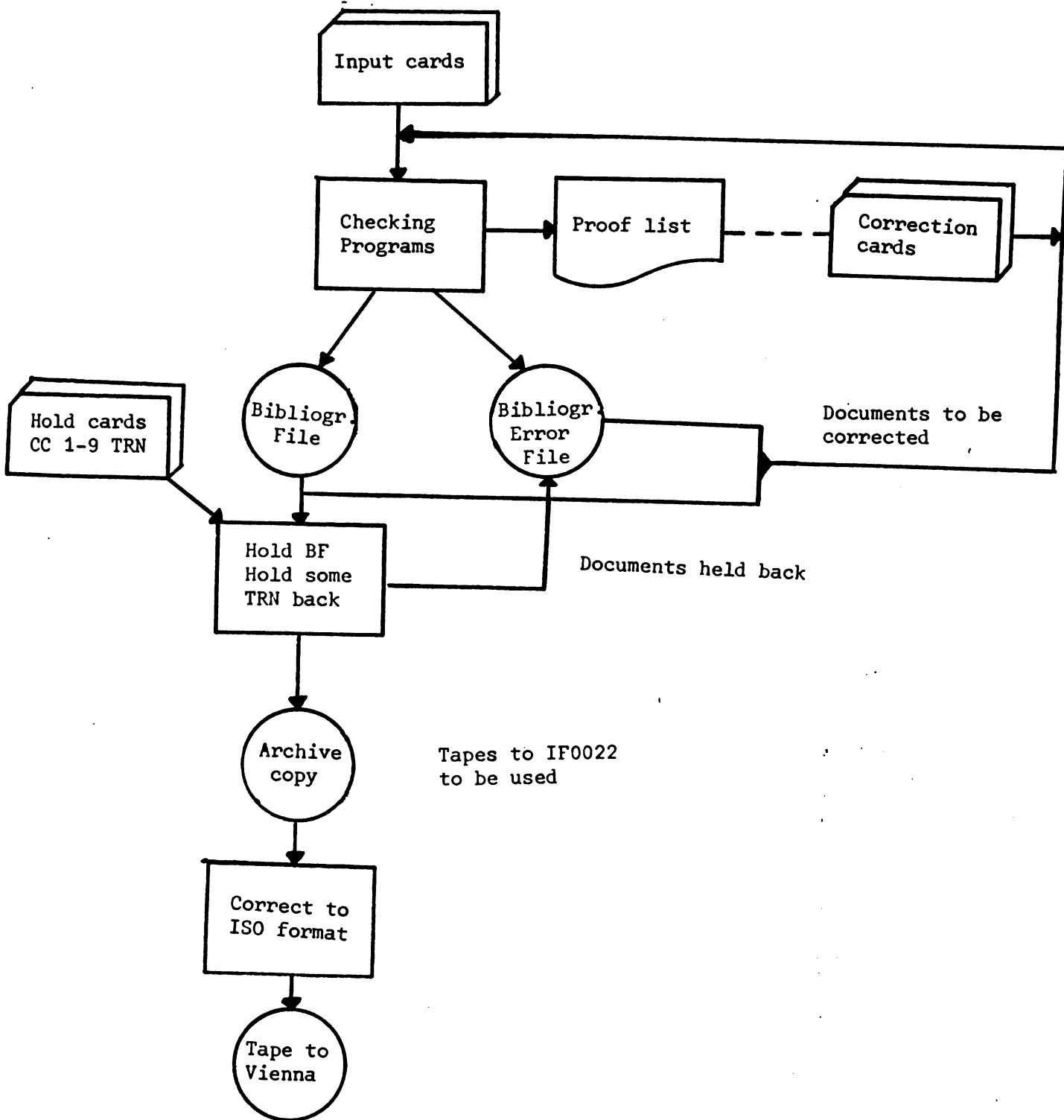


Fig 1: AGRIS Checking Cycle

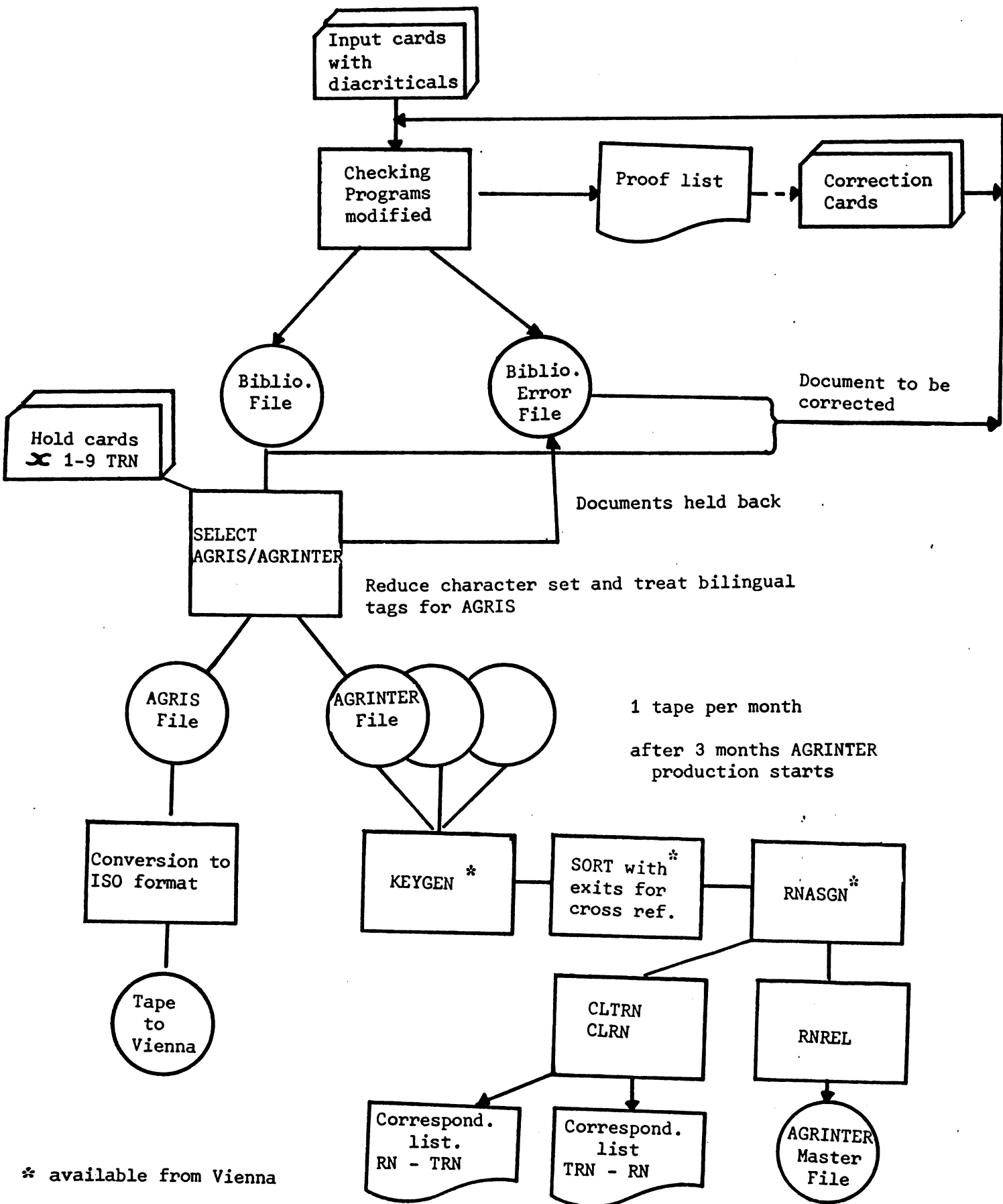
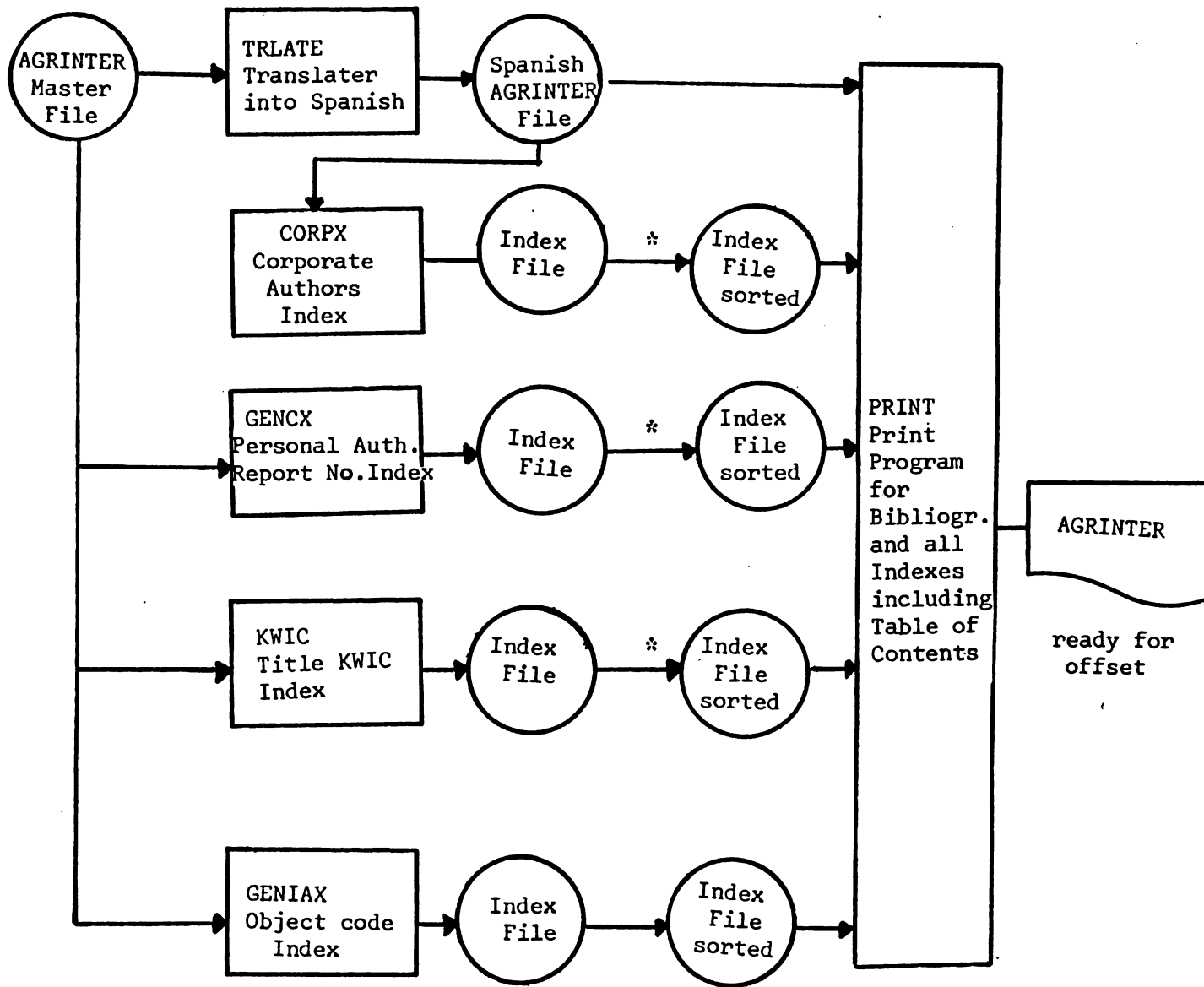


Fig 2: AGRINTER/AGRIS



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Sort by
alphabet

22 MAR 1982



Investigation of the

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DOCUMENTO
MICROFILMADO

23 AGO 1982

Fecha: