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CONSULTANCY SERVICES REGARDING THE ESTABLISHMENT OF A DATA BANK AT THE ARAB UNION FOR CEMENT AND BUILDING MATERIALS IN DAMASCUS

US/RAB/90/152

SYRIAN ARAB REPUBLIC

Technical report: Computerization at the AUCBM*

Prepared for the Govern at of the Syrian Arab Republic by the United Nations Industrial Development Organization

> Based on the work of Yousef M. Agel, computer expert

Backstopping officer: J. Pavlik Institutional Infrastructure Branch

^{*} This document has not been edited.

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ABSTRACT

COMPUTERIZATION OF THE ARAB UNION FOR CEMENT AND BUILDING MATERIALS DAILY WORK

This report describes a 10 weeks mission. The purpose of the mission was to study the computerization requirements of the Arab Union for Cement and Building Materials (AUCBM), to provide technical advice on developing and implementing a data bank for the union as a step to enhance the administrative and technical activities of the union, and to increase the effectiveness of the union, hoping this step will lead to another steps widening the benefit of computerization to members of the union.

INTRODUCTION

The objectives of the Union is to develop and consolidate the technical, industrial and commercial relationships between members, and help complement the industry of cement and building materials through exchange of members' experiences, specializations, and activities.

The union is publishing a scientific journal in the field of cement industry and related materials. It also publishes several statistics and booklets, it collects statistics and cooperates with Arab & International organizations in order to achieve these objectives.

SOFTWARE TO BE PURCHASED AND/OR DEVELOPED

Systems and programs developed or to be developed: The following numbering will reflect the priority of developing these systems as agreed upon by the AUCBM management.

1) Statistical data bank:

The data bank included basic information about member companies like name, address, data of membership etc... it also included statistical information on production of cement and building materials, export, import, factories, financial control of members subscriptions, personnel, accessories, consumption etc.

The data bank may include the information about Building Materials establishment in the Arab World. Two master files about countries and cement products were used, the first used the UN countries computer code from "UNIDO Guidelines for Project Design and Drafting of Project Documents V.89-60716". The second, master cement products were classified and tailored for the use of the union. (See Annex B)

It is recommended that future data banks be integrated with this data base in order to minimize the duplication of files; for example "Countries" file will be needed in the "Mailing List" data bank, and in the "Experts" data bank etc.

2) Library:

A specialized library about cement industry and related fields is part of the AUCBM facilities. It contains a reasonable number of books and periodicals. A library computer system will keep track of these documents and help users find the right information in the right time.

3) Mailing list:

list is mailing very helpful in tracking correspondence to and from the union. The mailing list will include main member companies related to the union, national and international cement and related establishments addresses. It also includes special addresses related to the union, research centers, organizations in the field consultancy etc. The main structure of the subsystem was developed implemented. It consists of 4 files. Country code, type of correspondence, main mailing file which holds, information like name and address, and the linking file.

(see annexes D,F)

4) Desk Top Publishing:

The union has a substantial amount of publications, books, periodicals, studies etc. Having a word processor and a DTP is very necessary to cope with this size of work. (Note: "Professional Write" word processor is already available)

5) Accounting General Ledger, Salaries, Fixed Assets etc. A modified Accounting General Ledger will be needed in the future.

Presently there is a system which can do the job, but due to some weak points and programming faults it needs some modification. Other subsystems like salaries calculation, fixed assets, journal subscriptions, loans etc. will be computerized in a less urgent step due to the small size of activities on these systems.

6) Follow-up of Coming and Outgoing Mail, actions taken on these letters, standing letters, distribution or destination of each letter, etc. A subsystem can be developed to help ease the burden of administrative staff. The subsystem will be able to track a letter in every station it stops in, remind administrative personnel of actions to be taken and finally keep a record of these letters as history for a reasonable agreed upon time.

7) Equipment and Manufacturing Companies:

A data bank about these companies will be needed, it will include beside basic information like names and addresses information about accessories, like paper for the cement bags, transportation etc. and all related products, its prices, and specifications.

8) Consulting Companies data bank:

This data bank will include information about consulting companies in the field of cement and building materials. The information consists of basic data about companies i.e. address, capital, number of employees. It also includes specializations, type and place of experiences, It might include information about research centers, institutes which work in the same field.

9) Experts data bank:

This data bank will hold information about experts in the field. Like name, address, qualifications, experiences, etc. to help answer the training and employment requirements of members for a certain experience. 10) Economical and Technical studies:

A financial package like Lotus 123 could be acquired, to help do feasibility studies and performance evaluations.

11) Availability of Building Materials:

A system to be developed to identify the building materials and there availability in the Arab World, classification of raw materials, intermediate and final products.

Information in this system will help identify places of these materials, reserves estimation etc.

- 12) Board of Directors & General Assembly Decisions:
 A program to keep track of the General Assembly and
 Board of Directors minutes of meetings. This will help
 track decisions recommendations and follow up on these
 decisions.
- 13) Conferences & Seminars in the Cement Industry fields:

A program to keep track of dates & places of related conferences / seminars to the cement industry on the national and international levels. The program or subsystem will match the requirements of companies who seek such seminars, it will also report on recommendations and evaluations of such seminars.

14) Personnel information:

Due to the small number of employees, storing data about personnel could be either through a word processor or a program to be developed later on. It will include information about employees, name, address, birth place and date ecc. together with history of experiences and qualifications.

15) Dictionary:

A specialized and updated dictionary for the cement and building materials is part of the publications the AUCBM can produce periodically.

A special program could be developed to enter and update the terms of that dictionary.

16) Standards of Cement Industry:

A program to store biographical information about standards of cement industry.

This job can be achieved by a word processor, because these standards are to be used as reference only.

17) Business Graphics:

Business graphics program like Halvard Graphics, Freelance or any other related package, to help to do business graphs and benefit from several capabilities the system will be able to do.

18) Problems & shutdown of factories:

Storage and retrieval of information about problems and shutdown of factories, to help identify reasons and solutions for these problems.

PC-METWORKING:

The AUCBM office is made of two separate apartments with a distance of around 25 meters horizontally in between.

Presently the two PCs available in the union are located in one place. It is suggested that a PC networking configuration to be acquired. In that case users of the computer in both offices can have access to the systems.

NOVELL Network is the most widely used and practical in the Middle East, there is a reasonable experience in dealing with that network.

It is suggested to have the 386 Novell, the system can handle 255 users. But as a first step, 3 PCs can be connected to the network, which will cover the need of the union for at least 3 years.

Price of the Network is around US \$7200 plus \$220 for each card, three cards (one for each PC) are needed at the present time, which will make the total price of \$7860.

TIME SCHEDULE FOR SYSTEMS TO BE DEVELOPED:

Some of the systems need to be developed/tailored for the requirements of the AUCBM, others need to be purchased/acquired as ready made packages.

a) Systems to be developed:

Statistical data bank * 6 man/weeks

2. Experts data bank 3 man/weeks

3. Library 6 man/weeks

4. Mailing list 2 man/weeks

Consulting companies data bank
 man/weeks

6. Equipment and Manufacturing companies 4 man/weeks

7. Incoming & outgoing mail follow-up 1 man/week

* Eighty percent of the statistical data bank was developed and implemented during this mission. It need some expansion in building extra reports as need arises together with additional views for search and inquiry.

- b) Systems to be purchased (ready made packages):
- 1. Economic and financial i.e. Lotus 123 \$ 500.00
- 2. Business Graphics i.e. Harvard graphics \$ 500.00
- 3. Desktop publishing Arabic/English \$ 2500.00
 (Al-Arabi Lil-Nashr from ICS, London or CCS, Amman)
 or
 DTP, cart. font, sakhr kit of

Jordan Computer Center \$ 1830.00

4. Relational DBMS such as ORACLE, R:BASE, Ingres, or Foxbase. Ranges from \$ 1300.00 for Oracle to \$ 600.00 for each of the other packages.

RECOMMENDATIONS & ESTIMATED PRICES FOR SYSTEMS TO BE PURCHASED:

- a) Administrative steps:
 - 1) Data entry forms might be used to collect information for the statistical data bank, this will save the time of collecting and rewriting data. (See Annex B)
 - 2) Records to monitor and control the consumption of computer supplies like printer ribbons, paper forms, floppies, etc. (See Annex G) It would be helpful to have a list of suppliers in the country and what supplies every dealer has, so as to help locating the most appropriate supplies with the most reasonable prices.
 - 3) Daily backup of all valuable systems to be taken and kept in a separate place for emergency. A list of all systems or programs to be prepared and updated to help locate these programs when needed.

b) Hardware:

Taiwanese IBM Compatible PC 80386 (Annex A)	\$ 2500.00
Optional: 1) Tape backup drive, 40MB capacity	\$ 660.00
c) Ready Made Software (packages):	
1. Economic and financial i.e. Lotus 123	\$ 500.00
2. Business Graphics i.e. Harvard graphics	\$ 500.00
3. DTP, Cart. font, sakhr kit of Jordan Computer Center	\$ 1830.00
4. R:BASE DBMS	\$ 600.00

PERSONNEL & TRAINING

The AUCBM staff is limited to a number of 10 people 8 of them need training on the future systems, each on the fields related to his/her work.

The suggested languages of training are Arabic as primary language and English as a secondary language.

1. All of the AUCBM staff need to be trained on systems/programs as users, every one will be trained on programs related to his daily work.

Estimated time, 2 weeks covering training on general use of systems.

2. Presently an electric/electronic engineer with some computer experience is responsible for the computerization. He has a maintaining the modifying and reasonable experience on before-mentioned developed statistical data bank. Keeping some top management is the R:Base one knowledgeable about responsibility, and enough training i.e. (one month) is necessary in case of replacing the present engineer.

Training could be arranged as general lectures for all staff, covering introduction to computers which will include a brief history of computers, present capabilities, etc. 2-4 hours.

Practical training about word processing 8-10 hours.

DTP will be part of the computer specialist training, 10-12 hours.

CONCLUSION:

- 1. The statistical data bank which was developed will be the cornerstone of the integrated data bank which will include most of the requirements mentioned.
- It is recommended that the "Mailing List" subsystem and other related data banks be integrated with the "Statistical Data Bank". That will reduce the duplication of some master files like "Countries". The countries master file can be used in "Consultancy Companies Data Bank", "Experts Data Bank", and "Equipment & Manufacturing Companies Data Bank".
- 2. DTP is the second priority for improving the work of the Union, it is recommended that at least two persons will be trained on using that system.
- 3. It would be very helpful to hire a community college computer graduate (2 years program) with 3-5 years of experience on data base applications on personal computers, or a university computer graduate (4 years) with 2-3 years of work experience on data base applications on personal computers. That will be enough to computerize most of the union requirements, or to get some help from outside consultants to do the job. Hiring will be more helpful for the union on the long run.
- It would be more benefitial to the union for the computer specialist to concentrate on new systems development and maintenance of previous systems. Data entry should be assigned to one of the lower level employees who should have enough training on that function.

ANNEX A

Hardware Requirements

Est. Price Item 1) A personal computer with the following configuration: IBM or compatible 80386 processor, 25 or 33 MHz clock speed 2MB RAM (To be effective on DTP) 64 KB cache memory HDD/FDD controller support 2 floppy and 2 hard disls 2 floppy drives 5.25" (1.2MB) and 3.5" (1.44MB) 80 MB Hard disk 8 expansion slots 2 serial, 1 parallel ports Arabic/Latin (101 keys) keyboard VGA Card VGA Color Monitor \$ 2500.00 Total price for all items above \$ 3145.00 2) HP ScanJet Plus Scanner 660.00 \$ 3) External 40 MB Tape streamer

Eight offers were gathered from PC dealers in Amman, Jordan and in Damascus, Syria. Evaluation were based on several points and a decision by AUCBM management were taken to purchase one 386 PC, with the above-mentioned configuration.

ANNEX B

SCREENS LAYOUT OF THE DATA BANK IN ARABIC

The annex consists of screen listing and some selected reports of the statistical data bank. It is as follows:

B1. The main menu which includes repeatable functions for each of "Data Entry", "Modify", "Browse", and "Delete". Together with some selected "Reports" and "Exit" from the menu. The attached annex include "Data Entry" only, other functions will be the same. The second part of the sheet includes the selected reports.

B2. Includes the following:

- a. Countries data entry
- b. Products
- c. Prices
- d. Consumption
- e. Imports
- f. Exports
- q. Companies
- h. Personnel
- i. Subscriptions of members
- j. Accessories
- k. Factories
- 1. Raw Materials
- m. Production

B3. Sample reports:

- a. By country
- b. By products
- c. By company

Database: C:..STA

ادحال تنصدينل مئساهدة حنسذق تقارين خنسروج

Database: C:..STA

ادخال تصعيل متاهدة حصذف تقارير خصروج

۱ تقرير حب المنتج ۲ تقرير حب البلد ۲ تقرير حب المركة ٤ تقرير صـادرات ۲ خـــروج

Database: C:..STA

الاشجاء المبريني لتلامينك ومواد اليتاء

بطاقحة ادخال البلدان

التاريخ: ٩١/٠٨/٠٩

رمز البليد :

الم البليد:

عدد اليكان :

المصلية:

Form: countrys Table: countryf Field: ctry_c

Page:

Add/discard Go to Exit

الاتحاد الغربي لبلاميت ومواد البنباء

بطاقحة ادخال المنتجات

التاريخ : ۹۱/۰۸/۰۹

رقص المنتج :

اسم المنتع :

البرجدة :

Form: m_prod_s Table: prodmasf Field: prodno

ا لاتحاد العربي ليلامضنت ومواد البناء بطاقة ادخال الامعار

التاريخ: ٩١/٠٨/٠٩

رمز المنتع :

رسز الشركة:

اللنة: طريقة التصوير: نوع النمر:

التمر التعلي: / بالعبل: التعلية

سعس التصدير : العبلة: دولار

--- معدر البعلومان

Form: price_s Table: pricesf Field: prodno Fage:

Add/discard Go to Exit

ا لاتحاد المعربي لللاحبات وسواد البناء بطاقلة ادخال الاستهللاك

التاريخ:

رمز المنتج :

رصز البلد :

النسة : الوحدة :

عدد المسكان في البلد: نصو الاستهالاك:

توقع الاحتهالات / للغرد: للمالم:

كبيخة الاستهملاك الطامري : طلب الفرد : كخ

مسلاحظات :

Form: consum_s Table: consumpf Field: #DATE Page:

الاتحاد العربني لبلاميتك ومواد البناء

شاشة ادحال الاستبراد

العملة:

رمز البنتج :

رصز البلد :

المنت : الكبيت : الوحدة :

طريقة الاستيراد : بوع الاستيراد :

صعر الاستيراد: بصنة الصرائب: الأ

بلد الاستيراد :

Form: import_s Table: importsf Field: #DATE Page:

Add/discard Go to Exit

الاتحاد العربي لللاستنت وصواد البناء

بطاقحة ادخال التصديص

التاريخ :

رمز المنتج:

رصز الشركسة:

النة: الكبية: الوحدة:

طريقة التصدير: نوع التصدير:

صعر التصدير : العبلة:

بلد التصدير :

=== مصدر الجعلومات =

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Form: comp_s Ta			د العصربيي	Add/discar الاتعا	
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_	وصواد البيناء ن لبيلا عضاء		د العصربيي	Add/discar الاتحا بطان :	rd Go to Exit رسز الشسركة

Form: person_s Table: personf Field: #DATE

ا لاتحاد المربي لتلامينت ومواد البناء مطاقبة ادخال الاشتراكات لبلا عضاء

التاريخ: ١١/٠٨/٠٩

رسز الشسيركة:

رمز البسياح:

سنة الاشتراك :

: البيـــان

الصبطبع التدائسن :

المبلسغ الصحيصن :

Form: financ_s Table: financef Field: compno

Page:

Add/discard Go to Exit

ا لاتحاد العربي لنلامينت ومواد البناء بطاقة ادخال الينتلزمات

التاريخ:

رسز التساركة:

رمز المنتصبح:

قيمـة الاحتياطي : كصيحة الاحتياطي :

صصدر الصادة/المختسع :

الصعر سيف : التمر ضوب :

Form: access_s Table: accessf Field: compno

ا لانجاد الغربي ليلاسبنك ومواد البياء مطافية ادخال اليعامع واليبيئات

التاريخ:

رمز الشركة:

رقام اليملع :

عنوان المستنع :

رقح الهائلية : رضم التلكي :

سلاحطـــات :

Form: factor_s Table: factoryf Field: #DATE

Page:

Add/discard Go to Exit

ا لاتحاد الغربي ليلاحجنك ومواد البيئاء بطاقية ادخاق المواد الاولينة والمشبيبة

التاريخ:

رمز الشركة:

رسز البنتح / البادة :

مصدر البادة :

الــــــة: الكبية:

Form: materl_s Table: materialf Field: #DATE

ا لاتحاد المرضي لبلاميت ومواد البياء بطاقية ادخال الانتاخ

التاريخ : ۹۱/۰۸/۰۹

رسز الشركة:

وصو المتتع :

الوحدة :

الطاقة التصبيبة: الكبية البنتجة:

الصواصفة:

مسلاحظات :

= مصدر المعلومات =

Form: d_prod_s Table: prdtionf Field: compno Page:

- 24 -الاتحاد العربي لللاصبيت وصواد البياء تقرير بأحجاء البلدان

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	الجمهورية العربية السورية	syr
ليسر ة	العملكة الاردنية الهاشمية	jor
ديــا ر	جنهبورية معن العربية جنهبورية	egy
جنينة	العملكة المعربية الصعودية	sau
ريال	حمهورية الجزائر الديمقراطية	alg
ديسسا ر	دولتة المبحريان	bah
دينا ر	ر جمهوریت جیبوتی	dji
شلن	، بارديد بيبسوسي جمهوريد العراق	irq
ديستنا ر	دولت الكويت	kuw
دينا ر	العماميرية الليبية	lib
دينا ر	الجمهورية اللبنانية	leb
ليسر ة	حبهورية صوريتانيا الاسالامية	mau
بقشه	المحلكة المغربية	mor
د ز م ـــم	سلطنة عجان	oma
ريا ل	دولسة قبطر	qat
ريال	جمهوريبة الصوصال التيمقراطيبة	som
شلسن	الجمهورية التونصية	tun
دينيا ر	الامارات العربية المتحدة	uae
د ر هسم	بالرباق المصروبية المتعلاة جمهورية ال _{منعا} ن	yem
ريا ا		

رقام الصفحة : ١

التاريخ: ٩١/٠٨/٠٩

الوحيدة	احــم الهنتــع	مز البنتع
الف طن	البء الصريع التملب	1 - 1 1 - 4
الع طن	الاسجنت الجآئي	١٠١٠٠٠
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الله طنن		

41/-4/-	التاريخ: ٢	رقـم ا
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ا لاتحاد العربي لبلاميتك ومواد البناء قائبة بأمياء الشركات الاعضاء

التاريخ: ١٠/٠٨/٠٩

الصغحة: ١

jor01 : رسز الشركة رسز البلد : jor اسم الشركة : شركة معانع الاسعنت الاردنية الم الشركة : المسانع الاسعنت الاردنية Jordan Cement Factories Co. Ltd :

، 1940 . طلب الانخبام : ۲۸/۱۹۳ و تاریخب : ۲۲/۰۹/۷۸ قرار الابنبام : ۱/۵ و تاریخب : ۲۸/۱۰/۸۸

الملكية : منترك

نحيخ وأص الجال الاجتمى :

رأس المال المحلي : ٥٠ مليون ديناد النشاط : انشاع وتصويف

ANNEX C
R:BASE STATISTICAL DATA BANK DOCUMENTATION

LIST COLUMNS

Column definition	nc	

Name	Туре		Table		Index Expression
acomp_name	техт	50	companyf		Arabic company name
activity	NOTE		companyf		Activities
actual_prod	TEXT	3	prdtionf		Actual Production perc
address	NOTE		companyf		Address of company
amt_reserve	REAL		accessf		Reserve amount
applic_record_no	TEXT	10	companyf		Application record num
app_cons	REAL		consumpf		Applied Consumption
avg_coi;	REAL		consumpf		Average of Consumption
cable	TEXT	15	companyf		Cable code/number
capacity_design	REAL		prdtionf		Capacity Design
capital_local_curr	TEXT	15	companyf		Capital in local curre
ch_num	TEXT	11	lkprcom	*	(compno+prodno)Company
cif_price	REAL		accessf		CIF price
class_job	NOTE		personf		Classification of job
class_price	TEXT	10	pricesf		Class Price
compno	TEXT	5	exportsf	*	Company number
			factoryf	*	Company Number
			pricesf	*	Company number
compno	TEXT		5 material	f*	Company number
			accessf	*	Company number
			companyf	*	Company Number
			lkprcom	*	Company Number
			prdtionf	*	Company number
			personf	*	Company number
			financef	*	Company number

cr_amount	REAL		financef		Credited amount
ctry_c	TEXT	3	consumpf	*	Country code
ctry_c	TEXT	3	countryf	*	Country code
			financef	*	Country Code
			importsf	*	Country Code
			companyf	*	Country Code
ctry_cur	TEXT	10	countryf		Country Currency
ctry_export	TEXT	3	exportsf		Country of export
ctry_import	TEXT	3	importsf		Country of Import
ctry_name	TEXT	30	countryf		Country Name
ctry_pop	INTEGE	R	countryf		Country Population Num
date_application	DATE		companyf		Date of application
date_decision	DATE		companyf		Date of decision
decision_record_no	TEXT	10	companyf		Decision record number
demand_per_capita	REAL		consumpf		Demand Per Capita
dr_amount	REAL		financef		Debited amount
estab_date	DATE		companyf		Date of establishment
export_price	REAL		exportsf		Price of Export
			pricesf		Price of Export
export_type	TEXT	10	exportsf		Type of Export
exp_currency	TEXT	10	exportsf		Currency of Export
fact_address	NOTE		factoryf		Address of factory
fact_name	TEXT	40	factoryf		Factory name
fact_no	TEXT	2	factoryf	*	Factory number
faxes	NOTE		companyf		Facsimile numbers
fcomp_name	TEXT	50	companyf		Foreign company name
fob_price	REAL		accessf		FOB price
for_capital_per	TEXT	3	companyf		Percentage of foreign
f_phone_no	NOTE		factoryf		Factory telephone numb
f_telex	NOTE		factoryf		Factory telex number
head_b_dir	NOTE		companyf		Head of the board of d
import_price	REAL		importsf		Price of Import
			pricesf		Price of Import
<pre>import_type</pre>	TEXT	10	importsf		Type of Import (FOB -
imp_currency	TEXT	10	importsf		Currency of Import

local_price	REAL		pricesf		Local Price
mat_source	NOTE		materialf		Source of material
name_comp	TEXT	30	prdtionf		Company Name
notes	NOTE		consumpf		Notes
			prdtionf		Notes
			financef		Notes
			factoryf		Notes
oper_date	DATE		companyf		Date of operation
ownership	TEXT	12	companyf		Ownership
packing type	TEXT	10	importsf		Packing_Type of expor
			pricesf		Packing_Type of expor
			exportsf		Packing_Type of expor
person for	INTEGE	R	consumpf		Person for
per avl cap	TEXT	3	prdtionf		Percent Available Cap
phones	NOTE		companyf		Telephone numbers
price_cur	TEXT	10	pricesf		Price Currency
prodno	TEXT	6	lkprcom	*	Product number
P2 0 4.			accessf	*	Product number
			prdtionf	*	Product number
			materialf	*	Product number
			importsf	*	Product number
prodno	TEXT	6	consumpf	*	Product number
prodiio			exportsf	*	Product number
			pricesf	*	Product number
			prodmasf	*	Product number
prod name	TEXT	50	prodmasf		Product Name
prod_name prod_unit	TEXT		prodmasf		Product Unit
quantity	REAL		prdtionf		Quantity of Consumtio
quantity	KLAIL		materialf		
			exportsf		Quantity of Consumpti
			importsf		Quantity of Consumpti
wasania shi	REAL		accessf		Reserve Quantity
reserve_qty	TEXT	3(prdtionf		Standard Code of Prod
satndard_code	NOTE	٠,	accessf		Source of accessories
source	NOTE		importsf		Source of Data
source_data	MOTE		Impor car		33-2

		exportsf	Source of Data
		prdtionf	Source of Data
		consumpf	Source of Data
		pricesf	Source of Data
taxes_percent	TEXT 3	importsf	Taxes percent
telexes	NOTE	companyf	Telex numbers
t date	DATE	financef	Current date
world for	REAL	consumpf	World For
year.	INTEGER	materialf	
year.		importsf	Year
		exportsf	Year
		accessf	
		consumpf	Year
		_	1001
		personf	
		pricesf	Year
year	INTEGER	prdtionf	Year

LIST FORMS

Form	Table	Form Description
countrys	countryf	Country Screen
price_s	pricesf	Prices Screen
m_prod_s	prodmasf	Products Screen
consum_s	consumpf	<pre>v_unit = prod_unit in prodmasf wh</pre>
import_s	importsf	Import Screen
export_s	exportsf	Export Screen
comp_s	companyf	Company Screen
person_s	personf	Personnel screen
financ_s	financef	Financial screen
access_s	accessf	Accessories screen
materl_s	materialf	Materials Screen
factor_s	factoryf	Factories Screen
d_prod_s	prdtionf	Production Screen

LIST REPORTS

Report	Table / View	Report Description
ctry_r	countryf	Country Report
export_r	exportsf	Export Report
prod_r	prodmasf	Products Report
comp_r	companyf	Companies Report

LIST TABLES

Tables in the Database STATE

Name	Columns
prod_v	2
personf	3
materialf	5
accessf	8
financef	6
factoryf	7
companyf	20
v_prod	5
lkprcom	3
test	8
finance_v	5
cons_view	8
prodmasf	3
importsf	11
prdtionf	11
pricesf	10
exportsf	10
countryf	4
consumpf	10

LIST VIEWS

Views in the Database STATE

prod_v

v_prod

finance_v

cons_view

 $\label{eq:reduced_reduced_reduced} \textbf{R:BASE MAILER DATA BANK DOCUMENTATION}$ LIST COLUMNS

corrfrm corres

ctryfrm country

amform mmail

Column defir	nitions				
Name	Туре		Table	Index	Expression
address	NOTE		mmail		Address
CCHECK	TEXT	6	lkmail		(NUMBR+ CORRC
ccode	TEXT	3	mmail	*	Country code
			country	*	Country code
cname	TEXT	32	country		country name
corrcode	TEXT	2	lkmail	*	Correspondenc
			corres	*	Correspondenc
corrdesc	TEXT	20	corres		Correspondenc
Faxes	NOTE		mmail		Facsimiles
name	TEXT	32	mmail		
NUMBR	TEXT	4	lkmail	*	
WOILDIN			mmail	*	Autonumbering
phones	NOTE		mmail		Telephone nos
phones	• • • • • • • • • • • • • • • • • • • •				
title	TEXT	8	mmail		Title of pers
tlxno	NOTE		mmail		Telex no
LIST FORMS					
Form	Table		Form Descri	ption	

Correspondence Codes Form

Main Mailer Form

Country Form

LIST REPORTS

Report	Table / View	Report Description
mmail01	mmail	
mmail02	mmail	

LIST TABLES

Tables in the Database MAILER

Name	Columns
corres	2
lkmail	3
mmail	9
qmailv	5
qmail	4
country	2

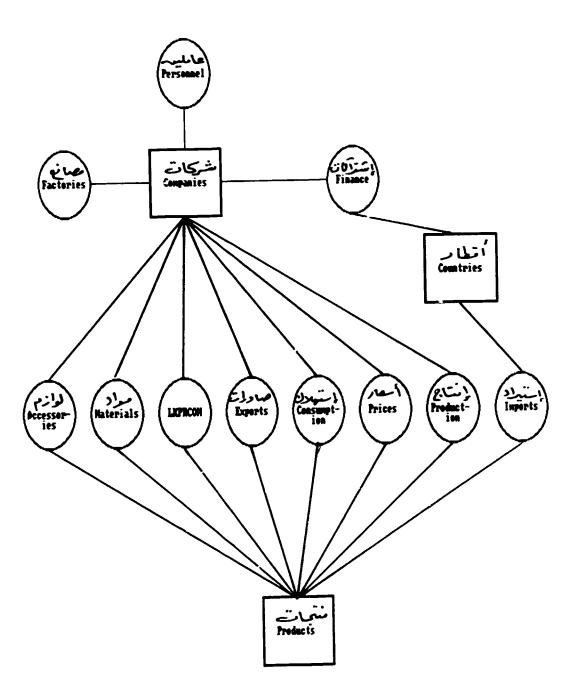
LIST VIEWS

Views in the Database MAILER

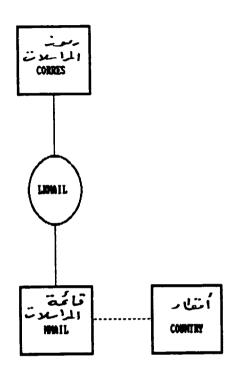
qmailv qmail

Arab Union for Cement and Building Materials

Statistical Data Bank Schema



Arab Union for Cement And Building Materials Mailer Data Bank Schena



Computer Supplies Inventory

	Order	Level:	
·	Order	reser:	

						
DATE	BALANCE	ISSUED	ON HAND	ON ORDER	RECEIVED	COMMENTS
	-					
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