A UNIFIED DATA BASE APPROACH

TO CORPORATE MANAGEMENT

by

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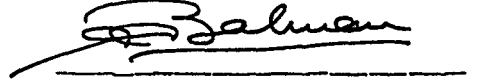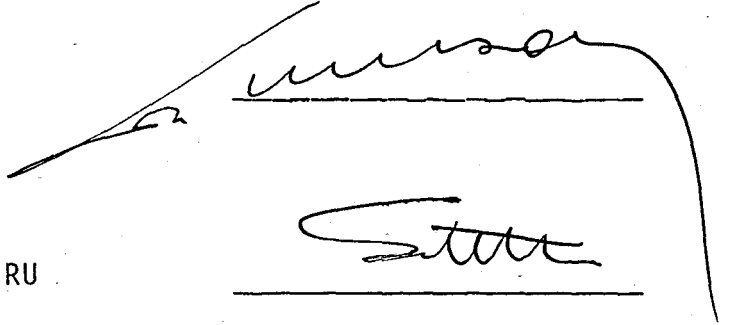
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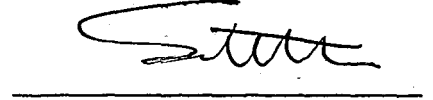
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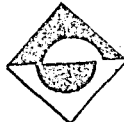
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ACKNOWLEDGEMENTS

ABSTRACT

The aim of this thesis is establishing a management information system in companies whatever its field of specialization. It also supplies some basic concepts of computer to the managers and introduces the activities of companies to the data base administrators. In order to meet this purpose, a suitable departmental organization is advised, the collection of data is analyzed, the scema is designed and the associated CODASYL program is written.

ÖZET

Bu tezin amacı, faaliyet sahalarına bakılmaksızın her tip şirkette bir yönetim bilişim sistemi kurulmasıdır. Bununla birlikte, şirket yöneticilerine kompüterle ilgili bazı temel kavramlar verilmekte ve veri tabanı yöneticileri şirketlerdeki faaliyetlerle tanıştırılmaktadır. Bu amaçla, bölümlerarası uygun bir teşkilatlanma tavsiye edilmekte, veri toplama işleminin etüdü yapılmakta, kayıt şeması çizilmekte ve buna bağlı CODASYL programı yazılmaktadır.

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I. INTRODUCTION

1.1 STATEMENT OF THE AIMS

Nowadays in the world, the managers of firms are aware of the importance of fast data-processing. This is so, because in order to gain money one should at least have some information about the subject. Moreover, the decision makers know that the information is submitted to a rate of inflation although they cannot identify the problem; and in some cases this rate of inflation is even higher than the one with which the money loses value.

Especially in Turkey, the administrators desire using a computer, but they are faced with certain problems such as: "What should the size be?", or "where should the data be gathered from?". On the other hand, the data base administrators do not know the sources of data either.

The aims of this thesis is to make the engineers and the administrators meet at some common points plus design a

management information system valid for every type of company.

The study proceeds in three steps: in the first part, a departmental organization will be set up, the real flows of resources will be analyzed and a management system will be implied. In the second part, the information flow in the system will be described. The creation of the data base according to this system will be the subject of the third part. Just to prevent a totally theoretical work, all the study will be illustrated on an example, but an example which is as general as possible.

What is interesting is that as soon as the management system is set up, every other work follows an interdisciplinary way and the schema formed have almost the same lines as the organization chart, as will be seen in the next pages.

1.2. ANALYSIS OF INFORMATION

Although the basis of life is pretended to be fire, water, etc, ... by philosphers of ancient times, the basis of life in society where men are in dialogue with each other, is information. This idea is also supported by the fact that our most important tool in life is the language which is the basic means of transferring information. Whatever

the objective, everyone needs at least a knowledge about
the destination, the means, the location, the time, etc ...
On the other hand, data starts existing as soon as an
event happens and keeps this state independent of the condi-
tions in the future, whether you need it or not, whether
you get it or not. This means that data exists in time
and can be transformed, that is added, subtracted, analyzed
or synthesized into information.

In contradiction with the objective existence of in-
formation, its importance is subjective depending on the
conditions or individuals. As a result of these two facts,
the importance is a function of time. Moreover, this func-
tion is of exponential type in many cases, i.e., has the
form:

Importance of information = $A e^{-\lambda t}$

The two parameters A and λ are determined according
to conditions and individuals, and in most cases the de-
cision theory supplies the tools for this purpose. If the
value of A is high, it means that the information is impor-
tant. The parameter λ shows the behavior of the importance
through time as it may be time dependent itself as well as
A. Figure 1.1 shows some data which is of certain importance
and which does not change importance after it begins existing

at time t_o. In this case, λ is zero.
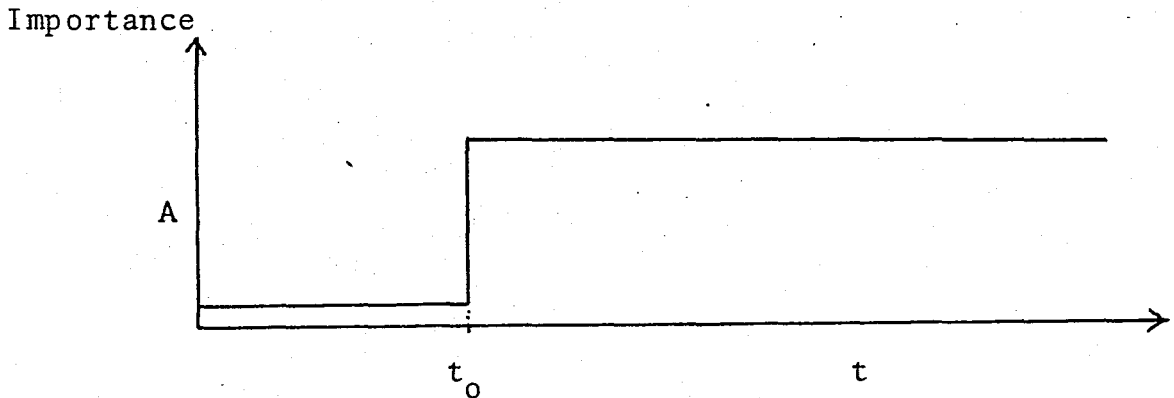
Importance

FIGURE 1.1. Step Importance Function of Information.

Suppose a case where information loses its importance as time passes because maybe accessible by more people. At time t_1, it is noticed that an error has been made in the theory. Then, the information has no value. After a while, at time t_2, the error is corrected. When the normal behavior continues, a condition which requires its knowledge arises at time t_3. And the data is spyed at time t_4. As shown in Figure 1.2, the value of λ and A are different in each interval of time.

For administrators, the case is also similar. A certain information can be of high importance till an event takes place. But after the even is over, they will have no need for it.
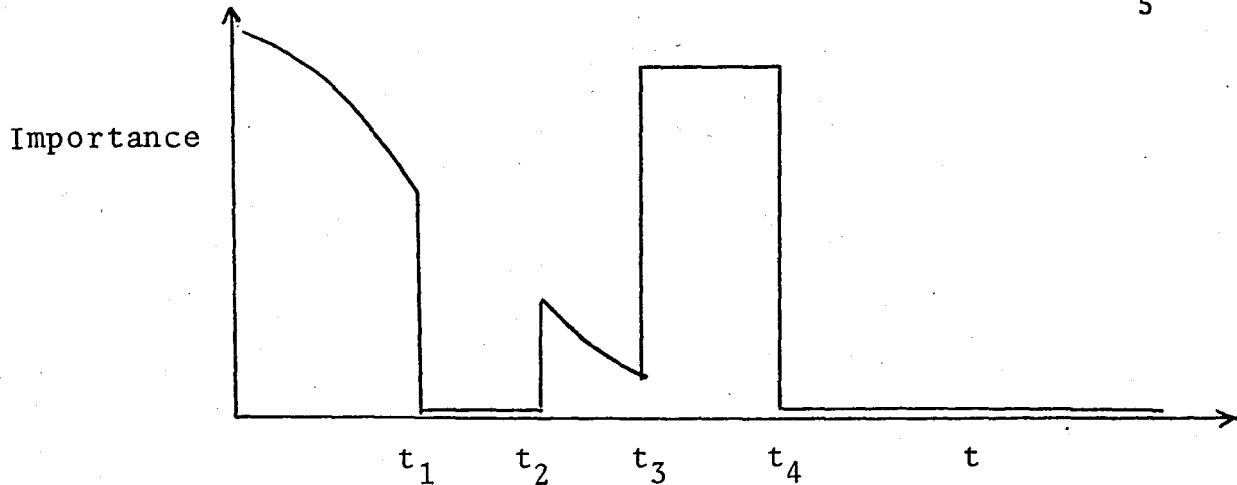
FIGURE 1.2. Example of Importance Function.

That is why, the complete and accurate data should be collected immediately after it begins existing, processed without mistakes and supplied to the administrator as soon as possible.

1.3. NECESSARY AND SUFFICIENT CONDITIONS

To create a complete and accurate report, submitted on time, both the data sources and the processor should be reliable. At this point, and from now on in the whole work, it will be assumed that the processor causes no problem. This assumption is not so unrealistic because the environmental conditions and the technical maintenance should always be at required levels. Moreover, an experienced programmer can always supply the various types of reports, which are produced according to the administrators' deci-

sions in real life, once he has the data stored. Therefore, collection of data will be the major problem. In fact, this is the point where data base administrators confronts serious difficulties.

To contribute to a report, a data unit goes through the following steps:

1. The existence of data should be discovered,

2. It is collected,

3. Stored and,

4. Processed.

One should notice that the first step is the most important one. Once a data unit begins existing, some people in the company know it; then the problem is getting it. For this purpose the departmental organization of a firm should be suitable. If not, then it means that the same type of data are known by different people, in different units. In this case, one may not know where to place the "control points" in order to collect this data. As a result, either it will be ignored or it is known so late that it has no value. On the other hand, once the departmental organization is established, the data can be collected, stored and processed according to decisions and all these

steps are implied by the previous ones. Therefore this is a necessary condition.

Second, the data should be in a suitable form. What is interesting, although many companies do not use computers, they use appropriate counters on which they print the data as if it will be processed in a computer. Moreover, people arranging them, and especially the accounters put some ex-planations. This last type of data can not be and must not be ommitted. Therefore, it should be expressed in a suit-able format in order to give possibility to store on a storage unit. To conclude, the appropriate design of coun-ters is the sufficient condition to feed the data to the machine.

To summarize, to have the complete and correct infor-mation on time, the organization of the company should be appropriate. Once the departments are set up in a suitable way, the next steps and the result will be implied directly.

II. CLASSIFICATION OF COMPANIES AND REPORTS

2.1. CLASSIFICATION OF COMPANIES

When looked around, there are a lot of companies en-
gaged in diverse fields. It seems that the conditions of
each firm are particular. However, it is possible to classify
them with respect to various characteristics. First of all,
each firm is founded to gain money. Second, they sell some-
thing: service, material, information or money itself for
this purpose. They sell their "somethings" to customers.
In order to sell, in other words, to produce an output, they
need some input. Furthermore, some of the companies trans-
form the inputs, we say that they make production, or they
sell them as they are bought. This last criteria is the
basis of classification in this work.

Another alternative to this criteria is the way the
firms work. They may trade, that is buy the input using
money, keep it for a certain time, possibly transform it and
then sell it. They many enterprise, that is promise to do
a work but they get some advance payments as in the case of

construction companies which are engaged in contracts. At last, a firm can work on a commission basis.

In the last way of classification, money is the basic item while the first criterion accepts the material in essence. As for foundations such as banks, insurance companies or travel agencies that do not deal with real material, it is observed that they also have inputs and outputs. Why do we not see them as their particular materials? The material of banks is money, the material of the tourism sector is a person, the material of consultant firms is knowledge or service or both.

There, we can impose a classification according to "our" criterion as follows:

I. PRODUCTION FIELDS
   A. High Rate Production
      1. Discrete Production (cars, spare parts, clothes, etc, ...)
      2. Continuous Production (paint, cement, textiles, etc, ...)
   B. Low Rate Production
      1. Construction of Buildings
      2. Construction of Ships

These production tvpes can be further subdivided as standard and non-standard according to specialization of the firm. Given a field of activity, a company can be engaged in either of these two types (for example: discrete standard or discrete non-standard). However, a company should not work in more than one field.

II. MARKETING

    A. Marketing of Goods

        1. Domestic Market

        2. Export

    B. Marketing of Services

        1. Domestic Market

        2. Export

III. FINANCIAL FOUNDATIONS

    A. Banks

    B. Insurance Companies

    C. Others

The general view of a given company can be described as shown in Figure 2.1.

The desicion is given for buying a production factor such as material, technology, etc ... The production stage

```
        Allocation          Decision          Feedback
                            Makers

                         Data Processing


        Material                              Service
        Personnel
        Machine                              and/or
Buy     Technology        Production
        Information                          Material
Money   Energy
Spending

                                                         Sell


                                                     Money
                                                     Gain

    Dividends    Interest        Capital   Credit
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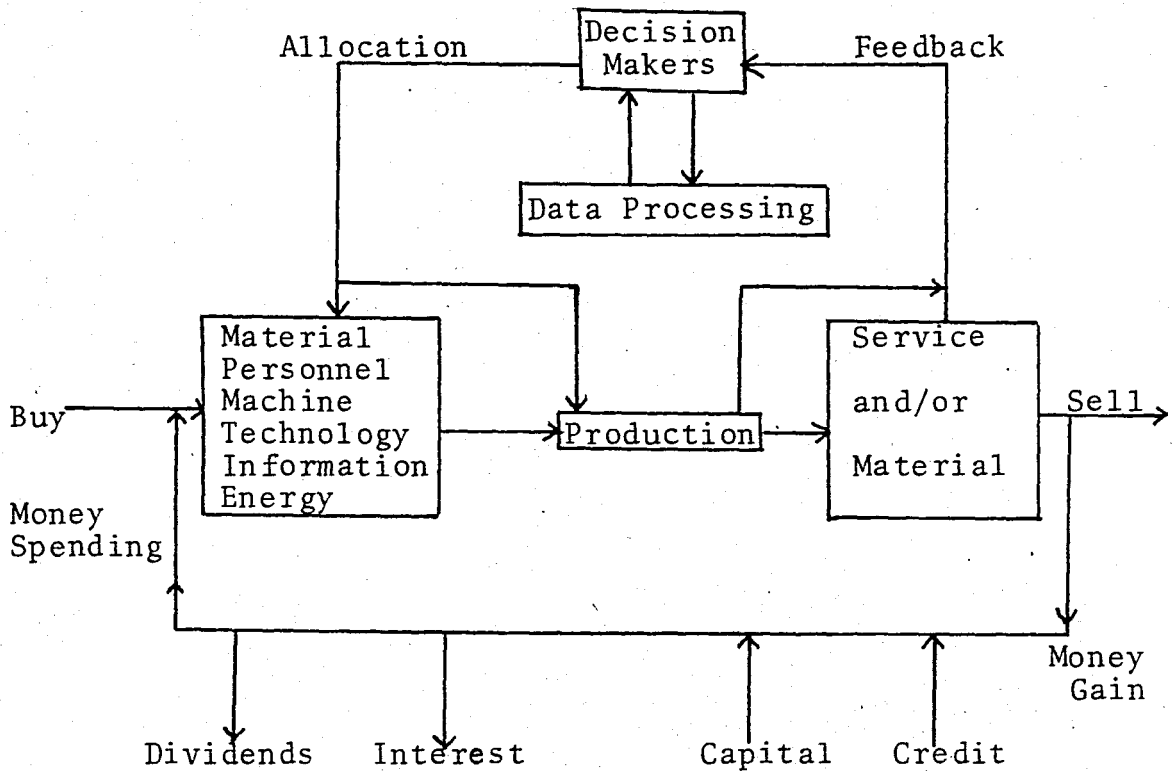
FIGURE 2.1. General View of a Company.

may or may not exist in every company but at least some of
these factors exist. The output is either service or mate-
rial. By selling them, the money comes in and it is reused
for further production factors. Meanwhile, the information
of finished products are fed to decision makers. The income
of sales is not generally the only money input. The capital
and the credits contribute to the money inflow, too. Money
goes out of system either in return of production factors
or as interest. The profit is also distributed as dividends.

What is interesting is that the data-processing department is very close to the administration, which is normal and as it should be, but it is away from the events since it cannot get the information from the real sources.

2.2. CLASSIFICATION OF REPORT TYPES

The information expected by managers from a data-processing department are involved in many areas. The grouping of these areas is done according to diverse criteria mostly imposed by the decisions of the administrators and also by the laws. Here is a list of activities about which they desire reports:

1. Accounting
2. Inventory
3. Fixed Assets
4. Machinery
5. Production
6. Personnel
7. Sales
8. Supply
9. Cost Accounting
10. Quality Control
11. Planning and Budgetting
12. Statistics

After receiving the order of solving the information problems in anyone of the fields stated above, the analysts begin studying the specific conditions of the company and try to identify the problem first. If they manage to do so, which is of very low probability, they begin designing the system. After awhile, a research on another field will be asked for and the major problem will arise if they try to relate any two previously designed systems.

This is so because the problem should be viewed globally. In other words, the reports should be grouped accordingly and instead of viewing each class as an independent system, the whole company should be considered as a system and each class as its subsystems.

III. DEFINITION OF A COMPANY

3.1. INTRODUCTION

In the previous two sections, it was concluded that a company is a system which handles its particular material and earns money by setting it. But this conclusion is not sufficient to explain every activity. Although the administrators expect a definition composed of one single sentence including words with slippery meanings, a company will be analyzed in terms of its components and it will be treated as a multi-input, multi-output system in this study.

3.2. COMPONENTS OF A SYSTEM

Each activity in a company can be expressed in terms of five components:

    1. Material
    2. Manpower
    3. Machine
    4. Money
    5. Information

The managers have therefore four components whose names begin with M in hand through which they can administer a company. In order to decide, they need the information about activities. This means that they get information and they make decisions. They observe how things go using again information. If necessary, they make new decisions. This cycle shown in Figure 3.1 keeps repeating.
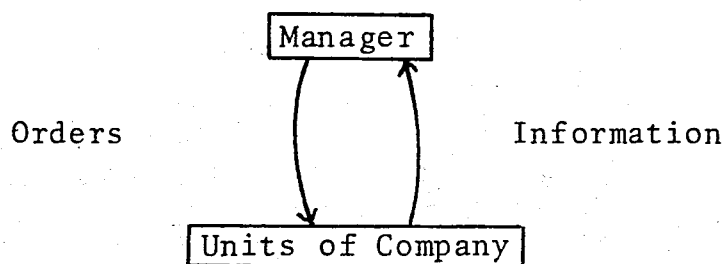
FIGURE 3.1. Decision-Information Cycle.

If one of these links is broken, then there will certainly be problems. On the other hand, the point at which information is collected (these points will be named "control points" from now on) should diffuse into the company.

These five components form a basis for a company. After the definition of material in previous sections, this component always exists. Since the aim of a company is earning money, this one is also well defined. It is not so

unrealistic to assume that one single person cannot do all the work (note that only the big companies are considered), that is why the manpower is always needed. As for machines, for some of the firms (such as marketing), they can be neglected but most of the time, a company has some machines. In cases where they do not exist, this component can be omitted.

There are two more factors, energy and technology that are not taken into account, because they are dependent on the other five components. One uses energy only if there are machines. The water, fuel and electricity usage in offices are considered as overheads and depends on factors like number of employees, fixed assets, etc...

The technology is the name given to developments in one or more of these components. 'It is either a new machine requiring investment (money), or know-how, in which case a new person may be needed, etc....

Therefore, the set composed of 4 M and 1 I components forms a basis for the company systems. Each activity is expressed in terms of these five parameters and they are sufficient to express everything in the system.

As a result, a company is a system which has five kinds of input and also five kinds of output. Moreover, although there are complex relationships between them, the black box showing the company is defined by these five components.

3.3. SUBSYSTEMS

Since there are five components in the system, is it not possible to subdivide it into five subsystems, each of them dealing with exactly one component? To be able to answer this question, components should be analyzed, which is the subject of the next section.
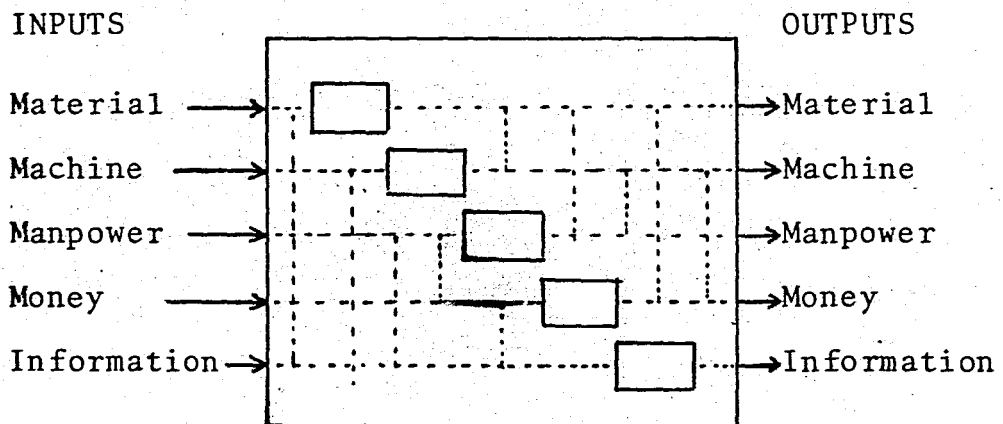
FIGURE 3.2. Subsystem.

IV. FLOWS IN THE SYSTEM

4.1. FLOWS OF COMPONENTS

In terms of real flows, the five components go through all or some of the following steps:

a. Material

Comes in + Kept + Transformed + Kept + Goes out

b. Manpower

Comes in + Transforms + Goes out

If temporary going out, comes back in

c. Machine

Comes in + Kept + Goes out

d. Money

Comes in + Kept + Goes out

e. Information

Exists in the system + Processed + Exists

         or   and/or

      Comes in   goes out

The four M-components differ from the I-component in several ways. First of all, information does not exist physically while the others do. It can only contribute to report. It is not subject to decisions, but it helps managers on deciding.

As it is observed, there is nothing lost of these five components in terms of real flows. Whatever the amount coming in, it should go out. Therefore a company transforms the components but they are not decreased in quantities. The materials are transformed, united divided, etc...; workers and employees become old; machines get depreciated; money is earned and spent and as it is mentioned in the first section, information looses its importance; but nothing is decreased in quantity.

What is used then? Does a company use nothing?

Well, what is used is not the components themselves but their time. The workers are paid because their time is rented, the credit will be paid back but the time is used, so there are interests. The machines have an average life. Managers hate materials in warehouses because their time equals time of money; and information is submitted to the rate of inflation. Therefore, what should be analyzed, is

the time the components spend in the company.

4.2. STAGES AND PHASES

Each component should be considered in three steps
that will be named "stage" from now on:

1. Before Stage: In this stage, the component is
   viewed as an input. It is either out of the
   system or has just entered and is kept physically.

2. During Stage: The component is in the system
   physically. It is either transformed, processed
   kept or transforms.

3. After Stage: The component is either exhausted
   or a candidate for outputting.

The above definitions are valid only for the four
M-components. The information keeps existing or processed
in any of the three stages.

Now, suppose an activity: it should be first planned
and the conditions for it to be realized should be esta-
blished. Then the activity is accomplished. At the end,

the result should be examined, that is the execution should be controlled.

Since these steps are true for any activity, each stage representing an event in terms of stated components, should also be further subdivided into three. These three subparts will be called "phases" and are: planning, execution and control.

The information is again an exception (of course after the software system is designed; for the periodic data processing work) but it has also the above three phases.

The data is collected when other M-components are controlled. During the execution phase, the data is processed. The reports should be supplied before new decisions about the 4 M-components will be given.

V. SYSTEM ORGANIZATION

5.1. SYSTEM TABLE

What is said in all of the previous sections, is summarized in a table that will be called the "system table" since it describes everything in the system, that is in the company. An example of such a table is given in Table 5.1.

The properties of this table are as follows:

a. The components are placed horizontally. The order among the 4 M-components can vary. However, the I-component should always occupy the right most column.

b. The stages are placed vertically in the order of Before, During, After. Each stage is subdivided into 3 phases, planning, execution and control, ordered among them too.

c. In each of the 45 boxes, the activities concerning the corresponding component at the mentioned

STAGE	PHASE	C O M P O N E N T S				
		MATERIAL	MANPOWER	MACHINE	MONEY	INFORMATION
BEFORE	PLANNING	PLAN THE PROCUREMENT	PLAN THE MANPOWER REQUIREMENTS	PREPARE THE FEASIBILITY REPORT	PLAN THE SOURCES OF MONEY	REPORTING
BEFORE	EXECUTION	PROCURE	SEARCH NEW WORKERS	PROCURE	GET THE MONEY	DATA PROCESSING
BEFORE	CONTROL	WAREHOUSE IN/OUT	REGISTRATION	RECORDS	ACCOUNTING RECORDS	DATA COLLECTION
DURING	PLANNING	PLAN THE PRODUCTION	PLAN THE WORK PROGRAMS	MACHINE TIME PROGRAMS		REPORTING
DURING	EXECUTION	PRODUCE	WORK	USE	KEEP THE MONEY	DATA PROCESSING
DURING	CONTROL	WAREHOUSE IN/OUT	RECORDS	RECORDS		DATA COLLECTION
AFTER	PLANNING	PLAN THE SALES	PLAN THE FIRINGS	WHAT TO DO WHEN DEPRICIATED	PLAN THE SPENDINGS	REPORTING
AFTER	EXECUTION	SELL	FIRE	SELL OR DISCARD	SPEND	DATA PROCESSING
AFTER	CONTROL	RECORD THE SALES	RECORDS	RECORDS	ACCOUNTING RECORDS	DATA COLLECTION

AN EXAMPLE OF
SYSTEM CHART
FIG.

phase is described. What is observed is that there are no activities concerning Money at the planning and control phase of the During stage, which is true. In real life, if you put the money into cash, there is no plan done for it. The plan for spending it is a preparation of output and therefore is declared in the After stage. On the other hand, the only way of controlling the money in cash is watching and counting it all the time. Therefore, the money in cash cannot be controlled by data processing (and it seems that thieves know this fact quite well).

d. The boundaries of the field of occupation of the company (i.e., the boundary of the system) can be drawn exactly. (See example in Figure 5.1.) Therefore, some of the boxes can be omitted according to the occupation of the company.

e. If a box is assigned to one single department, one can find the departmental organization of the company, the responsibilities of these firms being already printed. If a box is assigned to more than one department, then there will be authority problems arising, which is one of the actual problems.

	MATERIAL	MANPOWER	MACHINE	MONEY	INFORMATION
B — P					
B — E					
B — C					
D — P					
D — E					
D — C					
A — P					
A — E					
A — C					

FIGURE 5.1. Example: Boundaries of a Small Marketing Firm Working on a Commission Basis.

f. Some companies use the time of the components, the system chart shows the time flows too. For the 4 M-components, the time advances as went down. This is true within a stage whatever the conditions. When considering all three stages, this is true for a specific component, for example, for the excentric press with chassis number 11001100. It is first bought (before), used (during) and when depreciated, it will no longer be used (after). What happens when all the components are taken into account, will be studied later.

In the case of information, the time advances upwards. Moreover, when passed thru M-component

side to I-component side and visa versa, the
time advances, too. This is because passing to
I-component side means data collection and pas-
sing to the M-component side means reporting and
obviously both events takes some time although
not as much as it takes for the M-components
going down. Figure 5.2 shows these time flows.
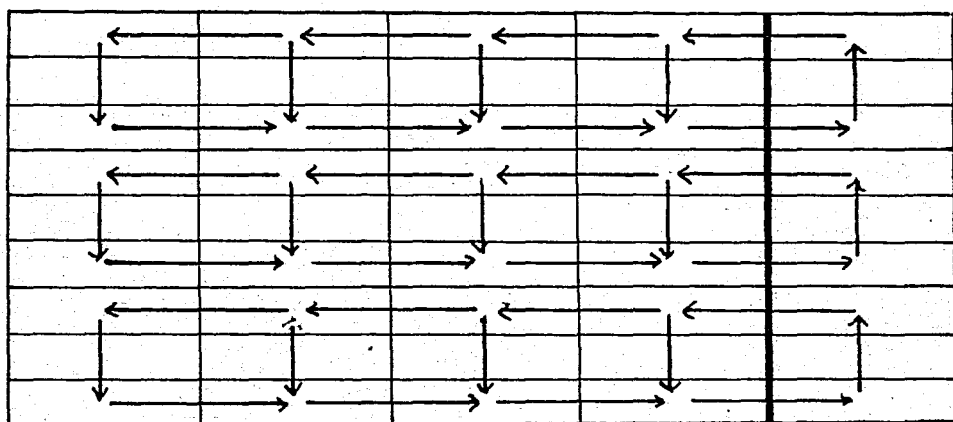
Figure 5.2. Time Flows.

g. The "control points" where the data is collected
   from are only in the control phases of each
   stage. This will result in the advantage of
   not disturbing people, that is not to oblige
   them to give reports all the time while they
   work. Moreover, specialized people can be put

at these positions which implies that the data
will be as accurate as possible.

In the case of material, to control the produc-
tion, the only way is waiting for the material to come
to the warehouse, i.e., to reach the control
point, because before this phase, there is no
data. However, if there are some virtual ware-
houses among processes, this problem will be
solved. This does not mean disturbing the pro-
ducers since the employee will belong to the
warehouse staff. The control points are stable
although the component time is dynamic. As going
down the table, the control points are sensed
by themselves and therefore the information is
collected.

h. A given component can pass through the during
stage more than once. For example, a worker is
assigned to a department. After awhile he may
be sent to work in another department. Then it
is a new plan, new work conditions and maybe
new salaries so he recycles the during process.
The same type of cycles are true for example if
the worker is on leave or if a semi-finished
product is stored in the warehouse and sent back

to the production shop.

i. The inter-departmental information flow is not direct but through the department dealing with data-processing. Since this last one gets every data, it can be viewed as a library. Moreover, after the reports are defined, there will not be much time lack in the information flows.

5.2. DEPARTMENTAL ORGANIZATION

One of the most important implications of the system chart is the departmental organization. Today, there is no objective criteria which will impose such an organization. The departments are established according to desires of the firm owners or dictated by politics. There are many cases where new departments are established although it is not necessary and even dangereous for administration but a given person cannot have a lower position than a director.

In fact this problem is easily solved too by the system chart because it gives the possibility to set up 43 different departments if you assign a department to each box or all the firm can be viewed as a single department. The authorities and the responsibilities of each department are specified clearly, which seems one of the major problems

encountered in real life. Moreover, at least one objective criterion is imposed by the system table.

By assigning the execution and control phases to different departments, one can establish the inter-departmental auspection, that is the auto-control of the system.

What is surprising is that there is no planning department. In fact, boxes corresponding to planning phases seem to be reserved to these departments but they are in fact only for planning of individual components for a single stage. A planner should consider every factor before setting up a model and giving advise. For example, in order to plan a machinery investment, he should know the characteristics of materials, monetary condition, etc. Nobody can expect one person to know everything. In this case, instead of a planning department, there should be a planning group of which men from departments dealing with material, manpower, money- machine and information are members. Of course, there may be some others only dealing with general plans.

As a result, a planning group is spread over the boxes corresponding to planning phase, in each of the 3 stages. This will not contradict the rule stating that each box should be assigned to a single department, because what

is found is a group, not a department and this group can only give advice. The short term plannings are performed by one single department for anyone of the components.

Assumption

The suborganization of departments are not considered in this work. However, it will be assumed that the departments are organized such that they can transfer the data of an event produced to its control points.

VI, TIME LAYERS

6.1. DEFINITION

In section 5.1.(f), the behavior of time on the sys-
tem table was mentioned. It was also stated that the com-
panies use the time components.

Now cut the system table horizontally in such a way
that it is separated as shown in Figure 6.1. Then put the
pieces one on top of the other to get the figure shown in
Figure 6.2. These will be called "time layers".

On a single layer, the time flows in counter clock-
wise directions as shown in Figure 6.3.

On the other hand, the time goes down the three
stages. Therefore, it seems there are two time axes, one
going vertically and the other rotating horizontally as
shown in Figure 6.4(a).

FIGURE 6.1.   Portioned System Table.
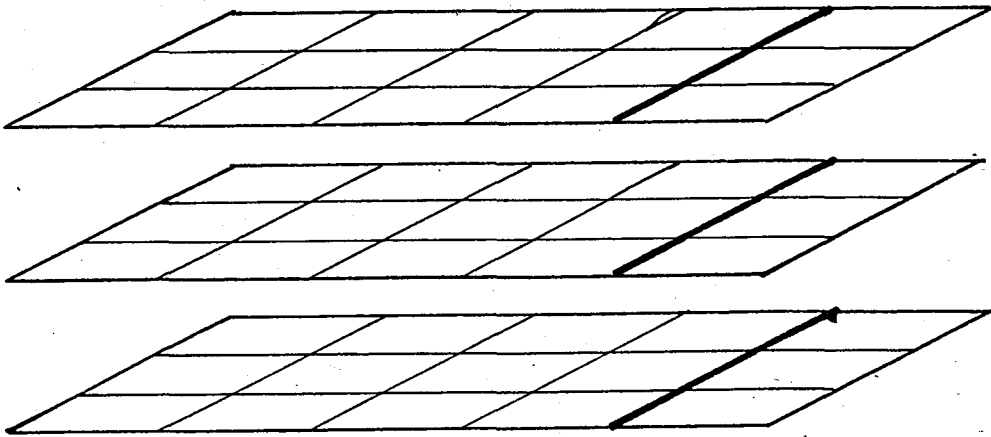
FIGURE 6.2.   Time Layers.
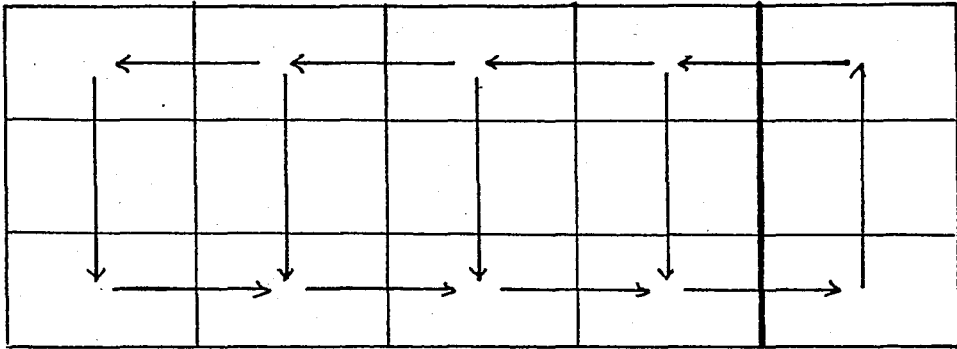
FIGURE 6.3.   Time Flows on a Layer.

(a)   (b)
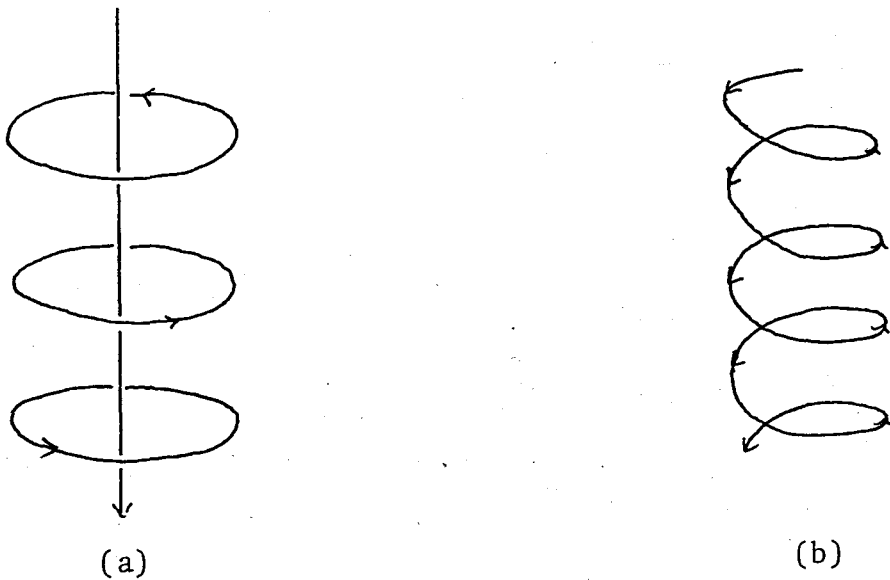
FIGURE 6.4.   Time Axes.

When two layers are considered, the time on the upper one is in advance with respect to the one on the lower layer. Since the time axis is single, it has a spiral behavior as

shown in Figure 6.4.(b). If one feels himself uncomfortable
with this spiral-shaped time axis, he can assume straight-
lined downward time axis and time layers going down as rota-
ting with a certain phase difference among them. Also note
that since the spiral time axis is stretched to be made into
a straight line, the layers are no longer horizontal but
they are a bit inclined.

This representation is an argument of that the com-
pany lives, that is, it is active in time. A second fact is
that the result of an event (data taken from the control
point) in any stage can be used for planning the before
stage of another event if it occurs after the one whose data
is collected. Moreover, every information can be fed to
any phase of any stage at any given time unless it occurs
after the data-processing.

6.2. TWO DIMENSIONAL REPRESENTATION

Although the time layers are not discrete or rather
the phase difference between successive ones is infinitesimal
during the work time, in order to visualize things better,
it will be normal to assume a certain big phase difference.
After this assumption, the states and phases can be drawn in
two dimensions for an interval of time as on Figure 6.5.

In this figure, the first letter represents the stage (B: Before; D: During; A: After) and the second represents phases (P: Planning; E: Execution; C: Control).

The first of these time layers is at the point when the company was founded. The administrators assume that a company lasts forever. We do not contradict this assumption in this work, i.e., the time layers keep being generated. As a result, no problem will arise if the data is assumed to start at the beginning of the time interval considered in Figure 6.5 on which we are going to examine some query paths in time.

The link 1 represents a plan which is used in the execution phase of the same stage. Link 2 shows the possibility of using a past experience in the planning of future events (After to Before, Control to Plan). Link 3 shows that the plans are the guides of the execution all the time.

If the fifth line is assumed to belong to a different component, links 4 and 5 says that all the past experiences of different components can be taken into account while planning an activity.
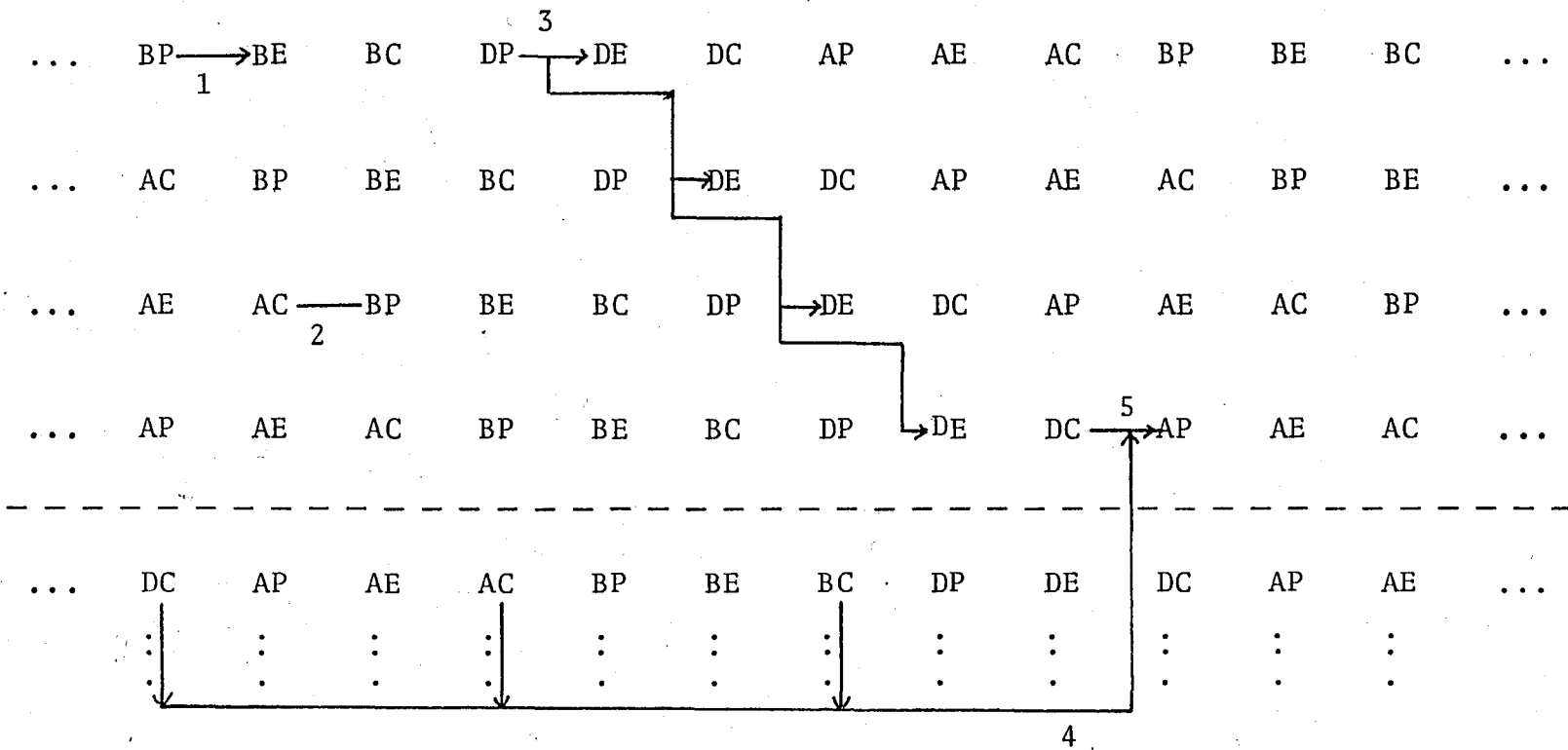
FIGURE 6.5.   Two Dimensional Representation of Time Layers.

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One can observe also that at a given time, there may be more than one occurrence of the same phase, of the same stage and even of the same component, which implies that all the activities exist all the time.

VII. ILLUSTRATION ON AN EXAMPLE

7.1. PROPERTIES OF THE EXAMPLE

Once the departmental organizations are set, we can now turn back and begin to work in order to meet our aim which is "creating a data base such that whatever the company's specialization field, the records should include all the necessary information for any type of report". As it has been announced in the introduction, an example is going to be considered.

However, this example is away from being specific in the following senses. First, whatever the specialization field of the firm in which a management information system is to be set up, there should be an analogous company in the example.

Second, the data-base should include all the possible records. If some of them are unnecessary, they may be omitted without destroying the schema - therefore the links

should allow it. On the other hand, there should not be incomplete information although it is needed.

Third, both the managers who are assumed to ignore the computers totally should get at least some idea of it, and the system analyst should have some idea of the company before going deep to explore the details.

7.2. STATEMENT OF THE CONDITIONS

A group of companies is to be examined. There are five companies, each of them being specialized in different fields. These fields are such that the firms belong to different categories shown in section 2.1. The types of organizations are as follows:

1. A construction company which is a contractor of projects in the home country and outside. They are spread out in diverse worksites. These last one are grouped in regions which are determined according to geographical conditions or to countries.

2. A truck production company as an example of standard high-rate production firm. There are four models produced. Processes are therefore

standard.

There are assembly lines. Raw materials and spare parts are either bought from domestic market, imported or produced in workshops. Quality control is performed at the end of production.

3. A paint production company as an example of non-standard and continuous production firm. It works on an order basis, that is, it produces special kinds of products whenever demand occurs. Quality control of production is of high importance and done simultaneously during the production. If the semi-finished product, whose sample is tested does not accord with the standards, either it is discarded or the following processes are informed so that the product can be corrected.

4. A marketing company which sells the production of the two previous companies and also other manufacturers' goods. It supplies the material needs of the construction company in every region. Besides these, it exports some goods. It also buys goods in large quantities and packages them before selling.

5. A holding company dealing with the administration and coordination of all the four firms.

One can assume some other firms too, but the charac-
teristics of them will have been described by the combination
of the characteristics of these five firms. Of course,
this description will be in terms of components as it will be
seen in the next section.

7.3. STEPS TO BE FOLLOWED

In order to design a management information system
for a given group of companies, the steps are as follows:

1. Analysis of the real and time flows of the 4 M-
    components.

2. Preparation of the system tables and of the time
    layers.

3. Determination of control points. Assignment of
    departments.

4. Design and assignment of the counters to control
    points.

5. Design of the record types according to data on
    counters.

6. Design of the schemas.

7. Estimation of the storage needs.

8. Loading the schema.

9. Design of programs to produce the reports.

Each of these steps will be accomplished in the following sections except the last one since the report types differ from one manager to another. Instead of this step, the simulation of some query types will be performed.

VIII. FLOWS OF COMPONENTS

8.1. REAL FLOWS

Money Flow

In this section, the real flows of the M-components will be analyzed. The fourth M-component, i.e., Money has a special view. Whatever the company, it comes in a certain department and goes out. It is not speculated in the system (Paying salaries means that money goes out of the company).

Money In

COMPANY

Money Out
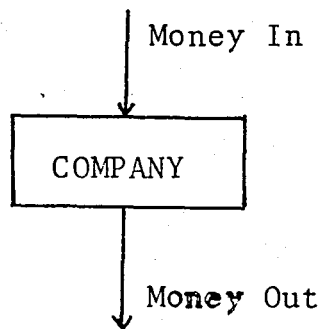
FIGURE 8.1. Money - Real Flow

Manpower Flow

The manpower flow is almost the same at the boundaries
of the system in all the companies. In case of construction
companies, there are lots of worksites, warehouses and pro-
duction shops and the workers can be interchanged between
different units. Although it is not as frequent as in the
case of the construction company, in the other firms the
workers can also change departments (departments in work-
shops or warehouse). This is true for the employees, too.
Therefore, the manpower flow is the same for all of the five
companies (see Figure 8.2).

Machine Flow

For the case of the three companies, the construction
company excluded, once included in the system, the machines
are in fixed places. The instruments like drills can also
be accepted at a fixed place since they are used in fixed
places in these three companies (in fact such instruments
are not expected to exist in the marketing company). The
tools like hammers are not in the group of machines. As a
result of these assumptions, it is possible to express the
machine flow in one single chart as shown in Figure 8.3.

Some of the machines of the construction company can
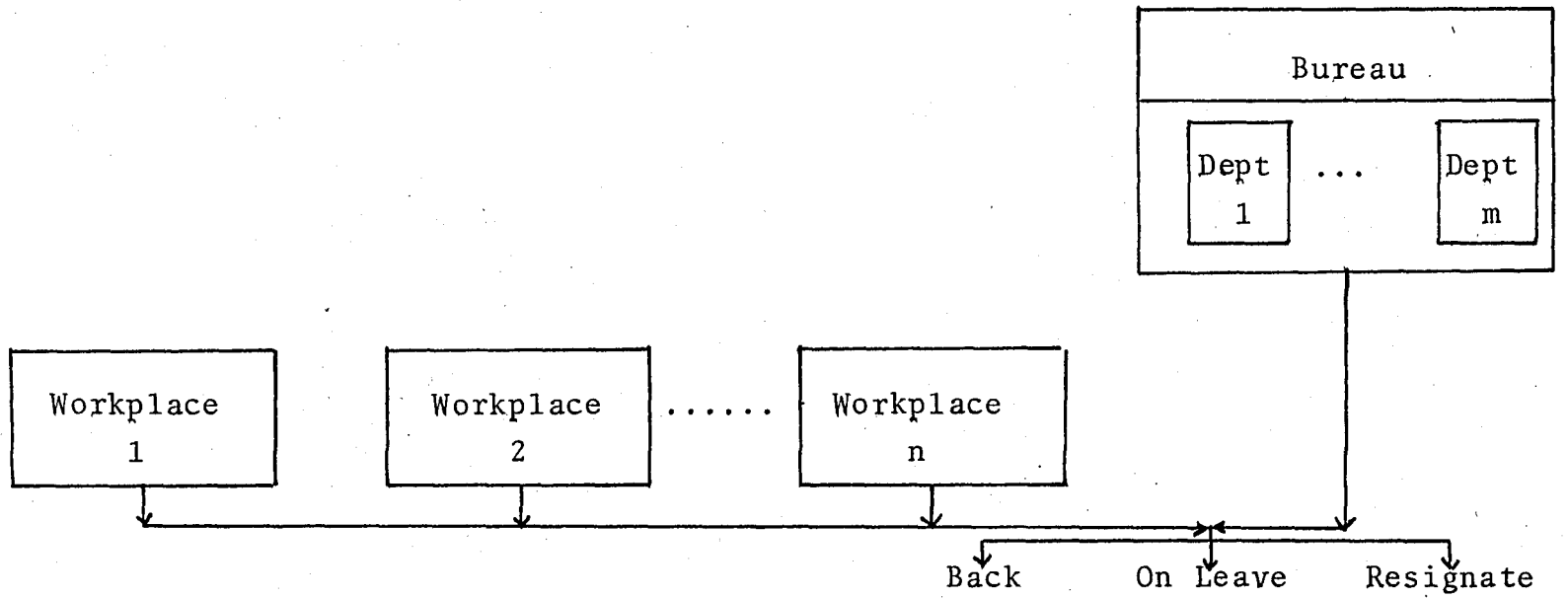
FIGURE 8.2.   Real Manpower Flow

New Machine

Repair Service

Depreciated Machine
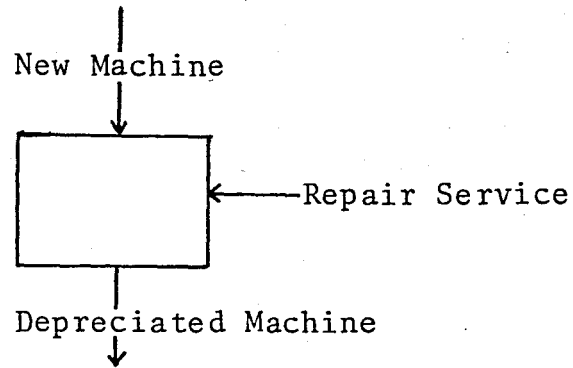
FIGURE 8.3.   Real Machine Flow for Paint, Truck and Marketing
Companies.

change locations, as in the case of concrete mixers and

cranes.   Such mobile machines are assumed to be directed by

one center where there is also a repair shop.   Note that the

case of firms which distributes say drinks, or of transport

organizations are similar.   The vehicles go out, stay and

work for some time (hours, days or months) and then they

turn back.   This means that although it seems there is no

relationship between a transporting firm and a construction

company, a subsystem of one can be valid for the other too.

Turning back to the construction company case, the

machines can be imported, bought from domestic market or

can be transferred among regions.   This is true also for all

the four M-components of the construction firm.   That is

why the flows are designed only for one region in Figure

8.4.
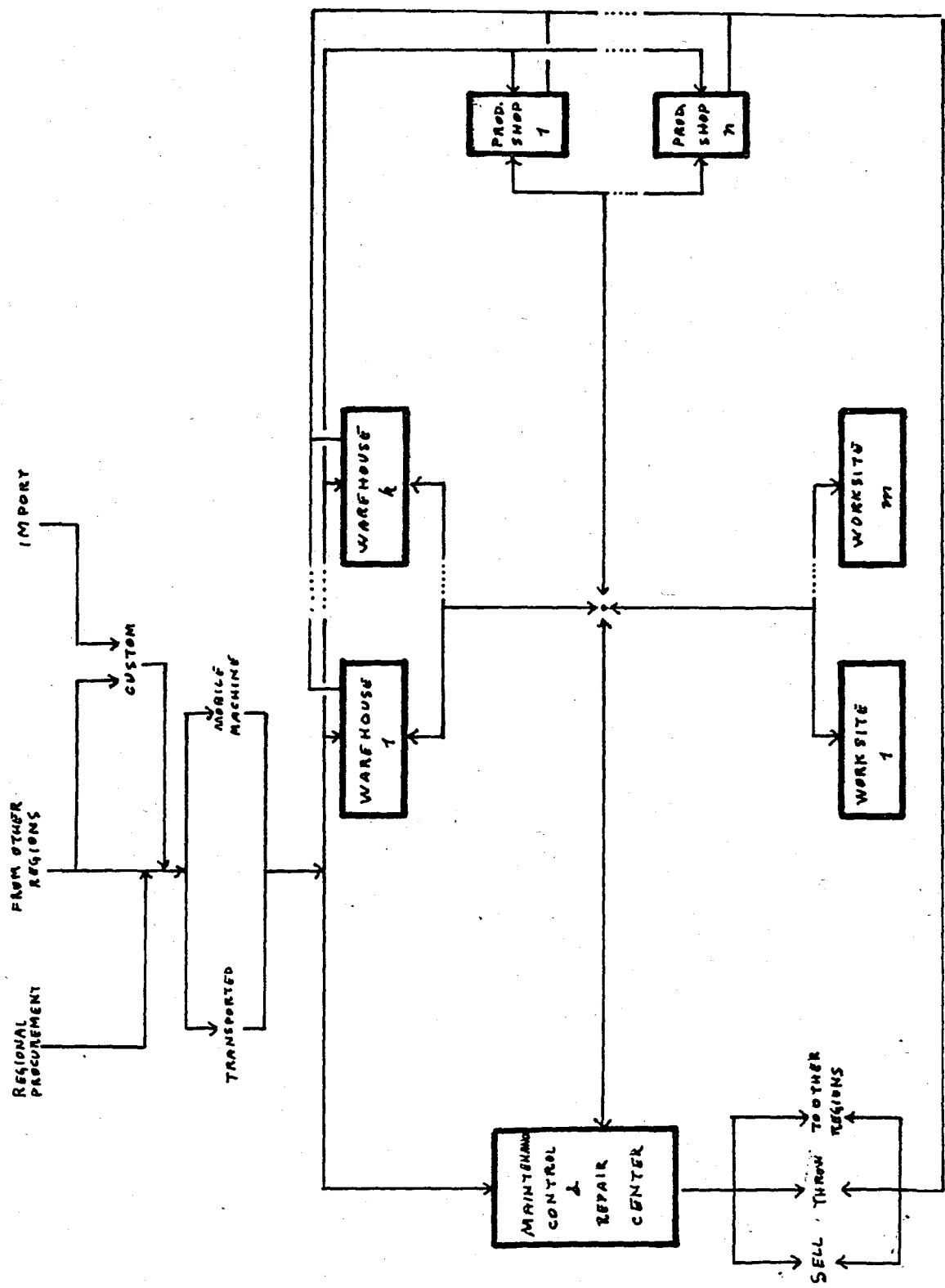
MACHINE FLOW (REAL) FOR A CERTAIN REGION OF CONSTRUCTION COMPANY

Fig : 8.4

Material

When we go back to section 3, we see that the basic
component in a company is the material. That is why this
component will be analyzed one at a time for each case.

a. Truck Company

The raw material or the spare parts comes into
the warehouse first where they are stored. They are first
submitted to a quality control. If the materials are found
to be defective, they are sent back, when the need arises,
then they are taken into the workshop. During the process,
some semi-finished products are stored in the warehouse.
At this stage, there are some products temporarily stored
in the production shop.

The finished goods are either spare parts or the
trucks. In both cases, they are all tested. If they are
found defective, they are sent to the repair shop. Here,
they are either repaired and sent to the warehouse or dis-
carded.

b. Paint Company

The entrance of material is exactly the same as
in the previous case. After the material is fed to the pro-
cess, at some point, samples of semi-finished products are
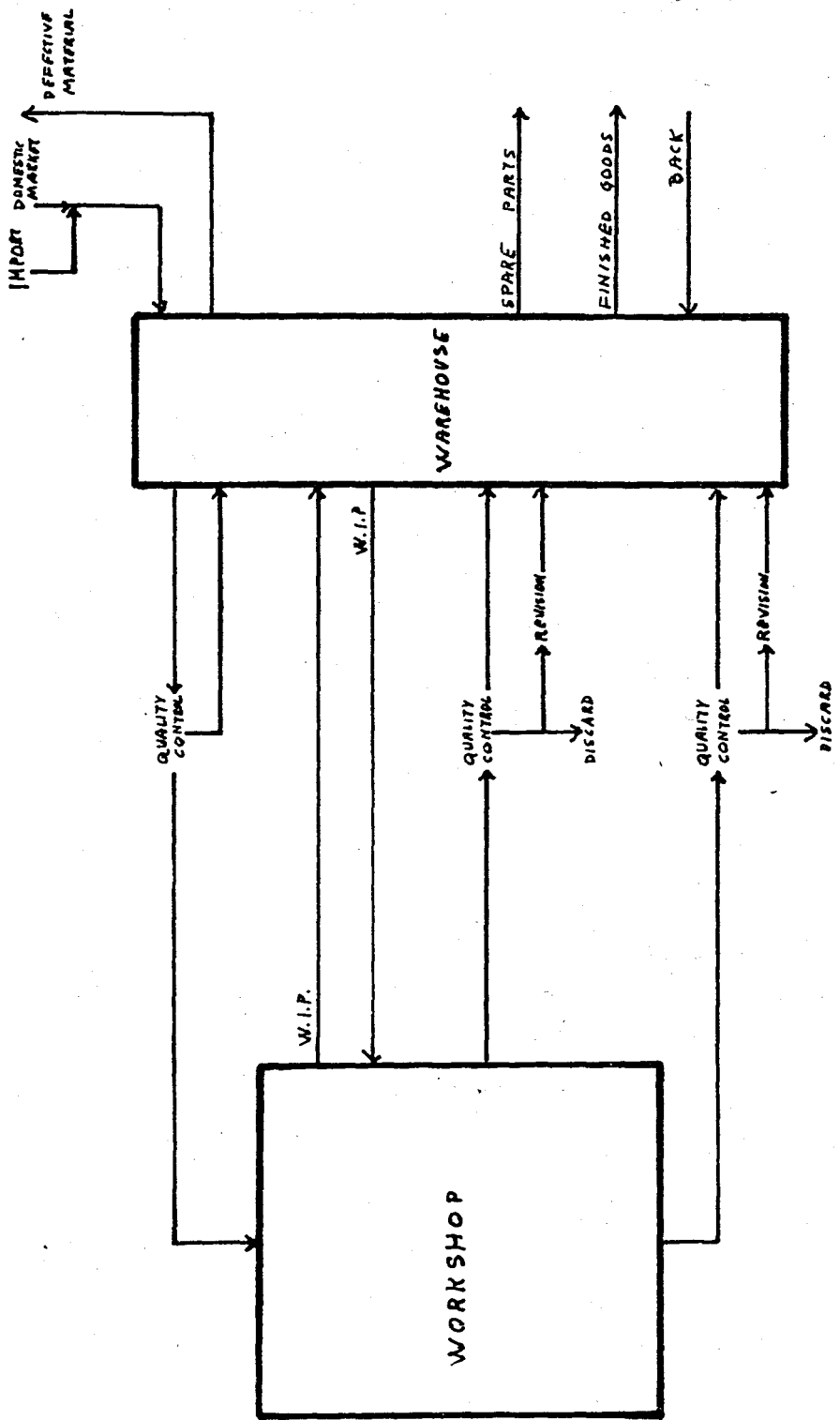
REAL FLOW OF MATERIAL IN TRUCK PRODUCTION COMPANY

Fig: 8.5

taken and sent to the quality control department. If they are defective then there are two possible decisions to be made: either they are discarded or they are turned back to some previous process and mixed in other productions in small quantities. As a result, what enters into the warehouse is 100 percent non-defective.

c. Marketing Company

It is assumed that there are a certain number of warehouses in various cities. The materials are either imported or bought in the domestic markets and they can be sold again to the domestic market or exported. At the same time, some materials can be shipped directly from the supplier to the customer, that is they are not stored in the warehouses.

In some warehouses, the packing process is accomplished; that is the materials comes in in large sacks and they are subdivided into smaller bags and the packing material is supplied by the marketing company.

d. Construction Company

Each region is considered as a system. The material inflow is classified in four categories:
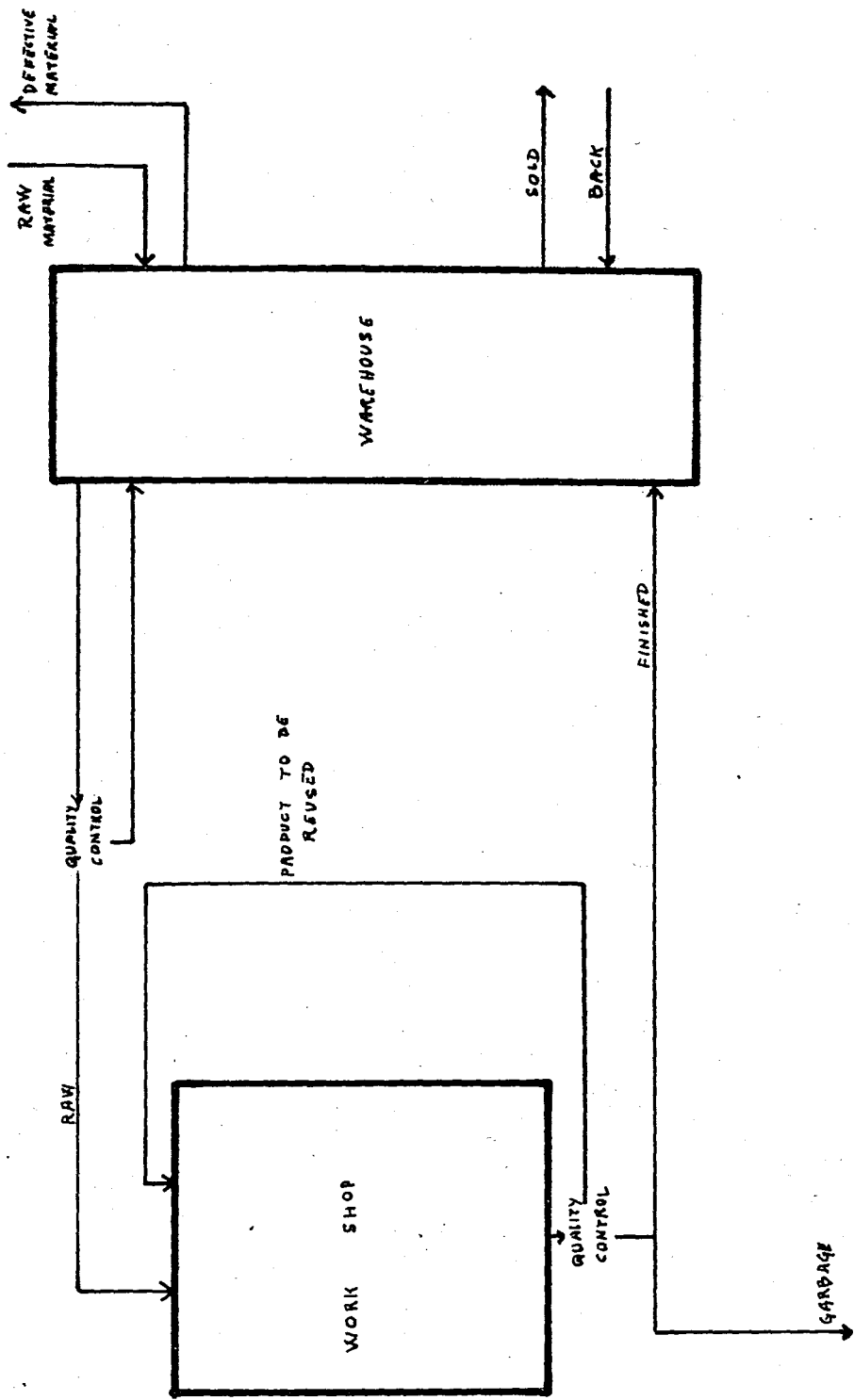
RAW MATERIAL FLOW IN PAINT PRODUCTION COMPANY

FIG 8.6
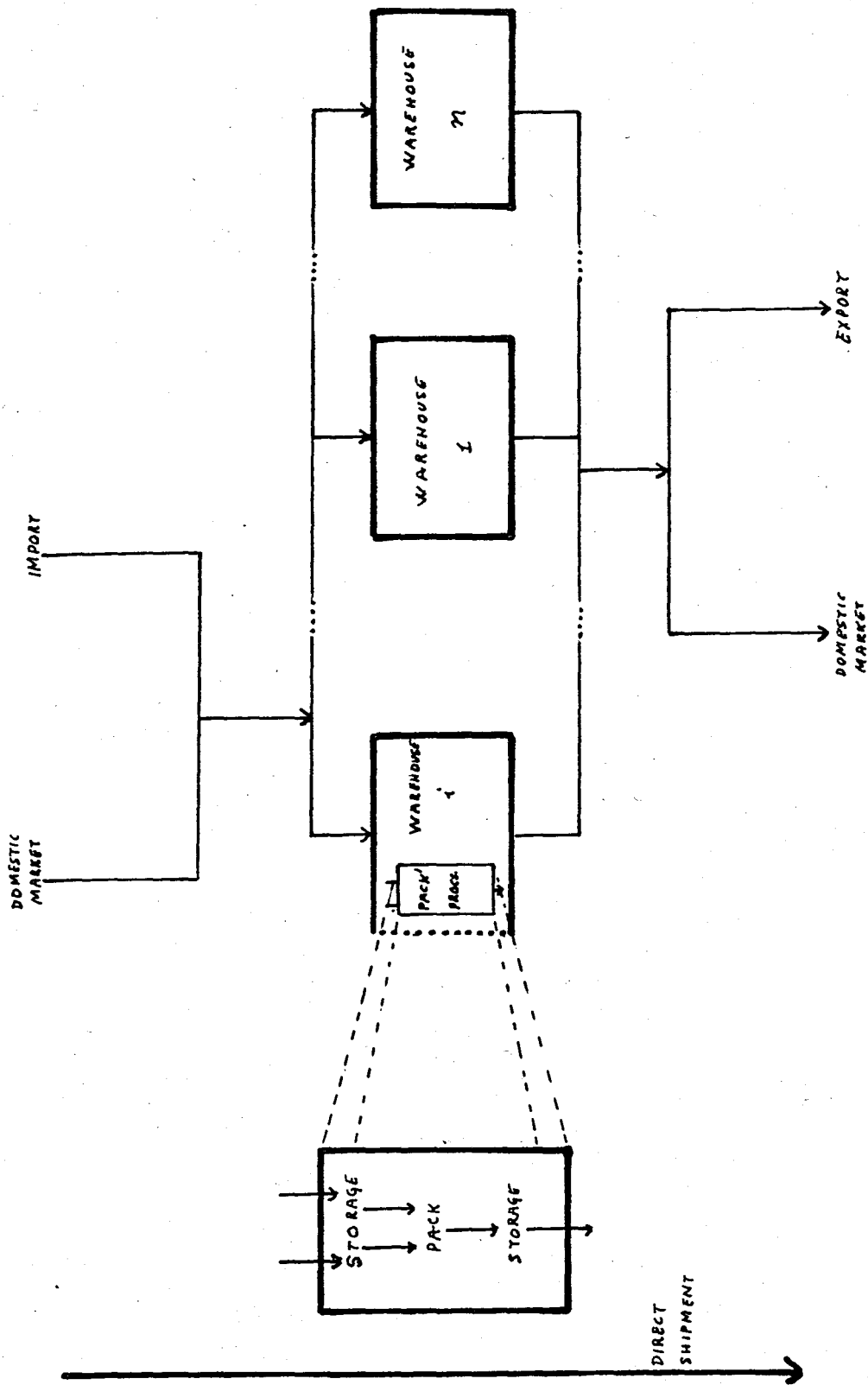
REAL MATERIAL FLOW IN MARKETING COMPANY

FIG : 6.7

- it may be purchased in the region,

- it may be transported from another region,

- imported from other regions,

- imported from suppliers.

It is first stored in warehouses. If the material should be processed in the production shops, it is sent to those units. The material produced is either stored back in warehouses or supplied directly to the markets which are also fed directly by the warehouses.

An interesting point is that there is no material outcoming from the worksites because, it is used in construction and stays there. The exception of this case is sending back of the amount which is not used.

If there are shortages in other regions, the material can be sent to other regions in the same country but it is not exported since it is not feasible in most of the cases.

8.2. TIME FLOWS

After analyzing the real flows among departments, the activities should be mapped into time-axis where events are ordered and are explained later. Moreover, on these drawings showing the flows of components in time, it will be possible
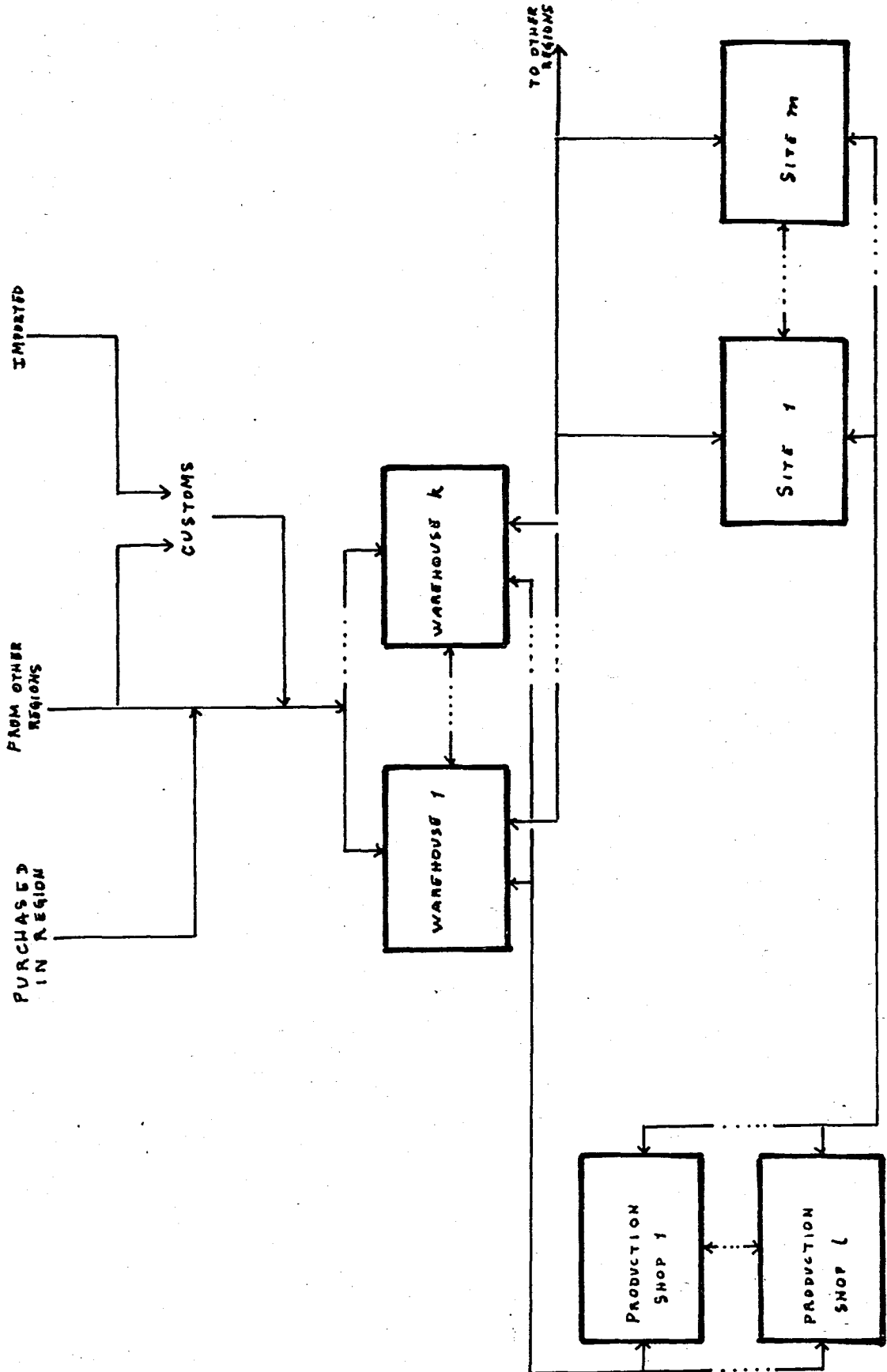
MATERIAL FLOWS (REAL) IN A GIVEN REGION OF CONSTRUCTION COMPANY

Fig 8.8

to show the stages. Figures 8.9 to 8.16 show these time flows.
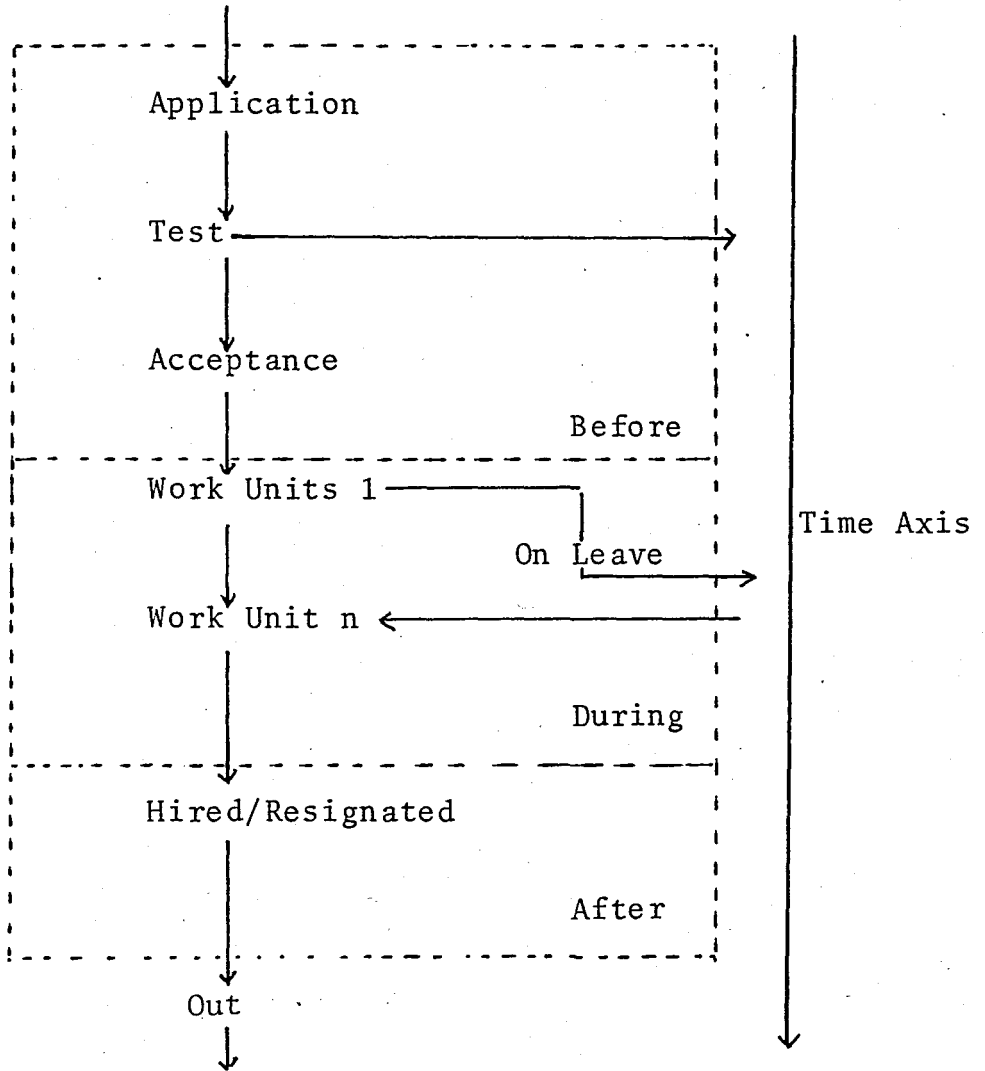
FIGURE 8.9. Manpower Flow in Time.
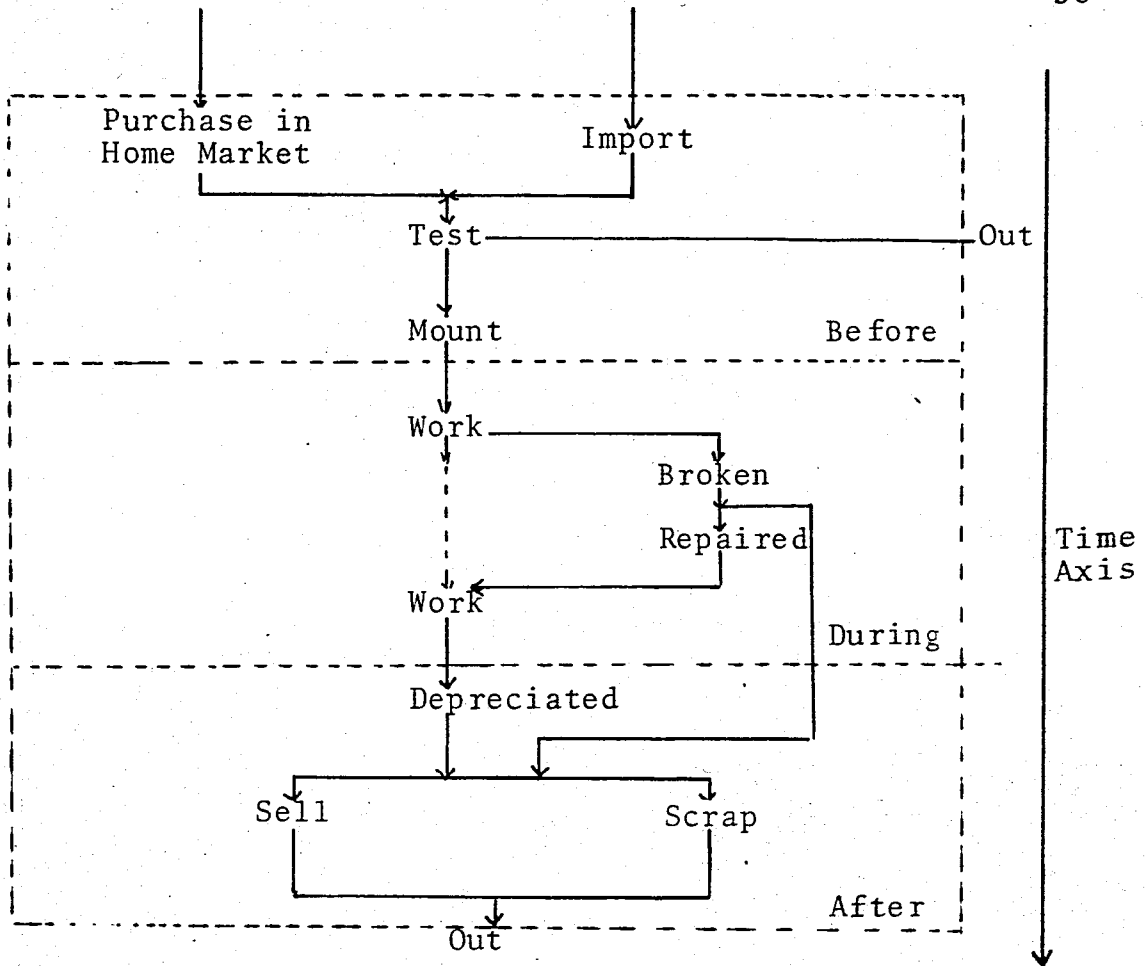
FIGURE 8.10. Machine Flow in Time for Paint, Truck and
Marketing Company's.
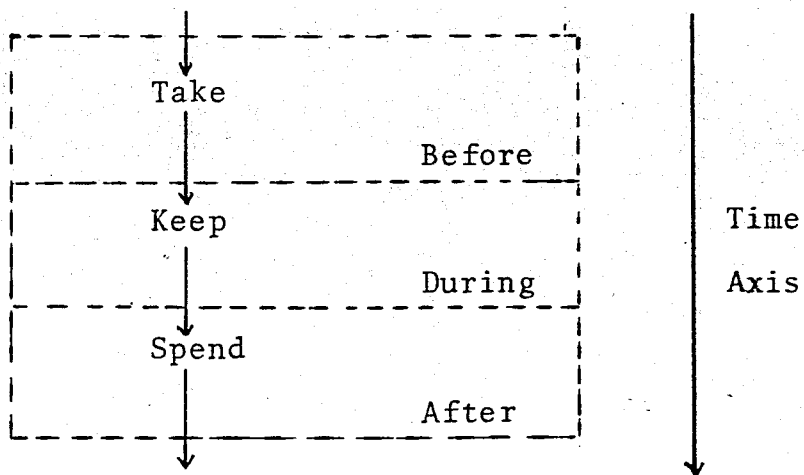
FIGURE 8.11. Money Flow in Time.
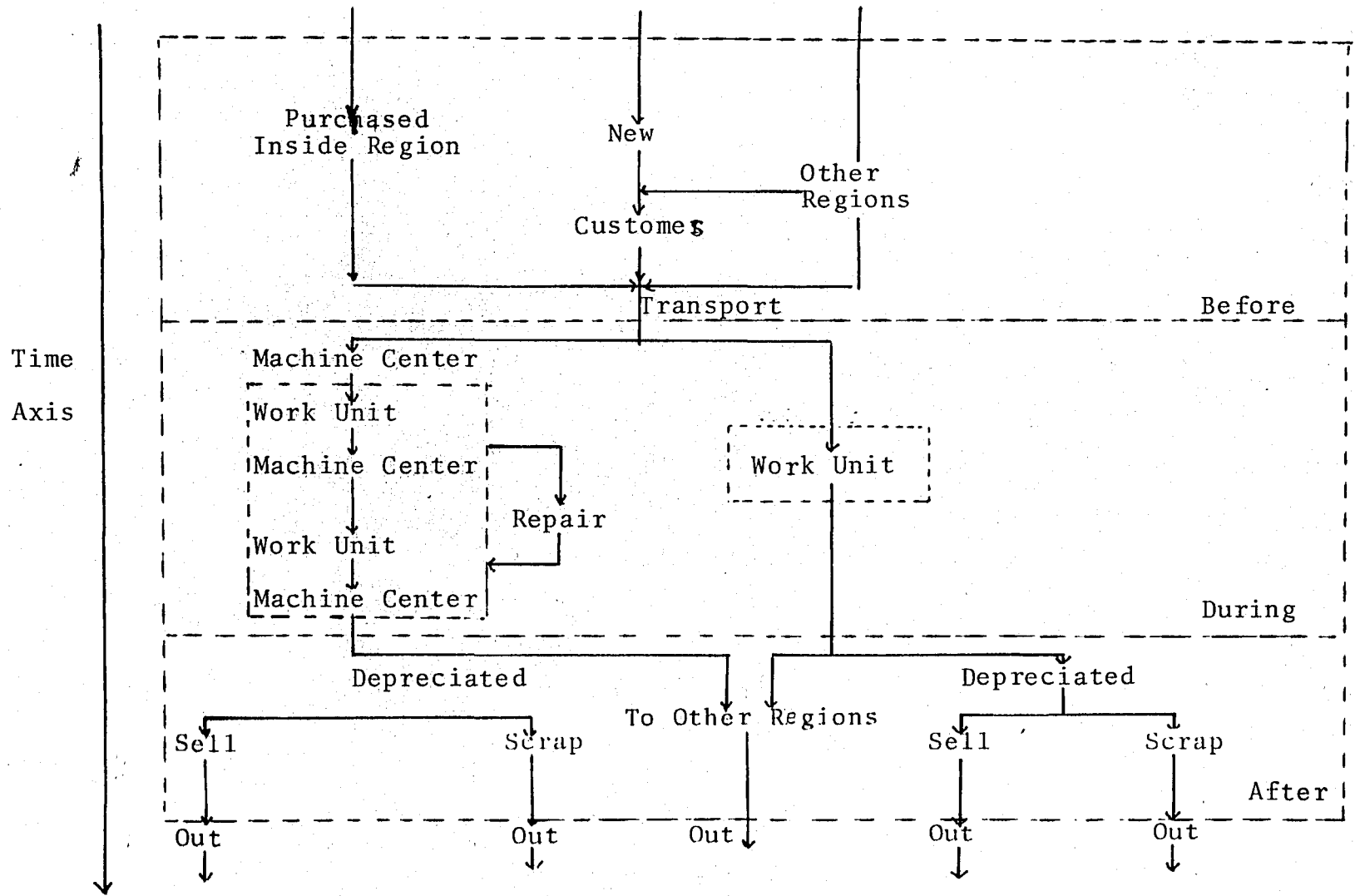
FIGURE 8.12. Machine Flow in Time for the Construction Company's Regions.

Purchase   Import

Warehouse

Before

Quality Control

Workshop   Warehouse

Quality Control   Out   Time

Axis

During

Warehouse

Shipping

After

Out   Out
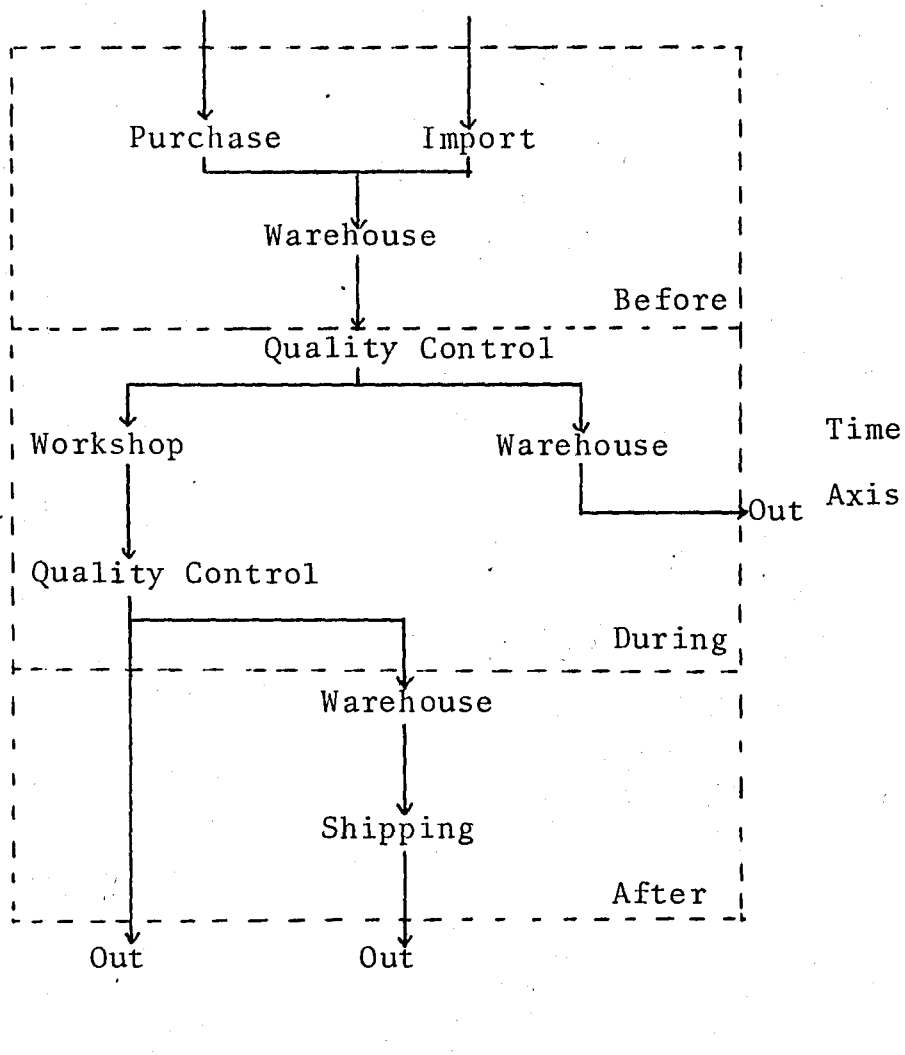
FIGURE 8.13.   Material Flow in Time
                       for Truck Company.

Purchase   Import

Warehouse

Before

Quality Control

Production

Out ←   Quality Control

Production

Out ←   Quality Control

During

Warehouse   Warehouse

Shipping

After

Out   Out
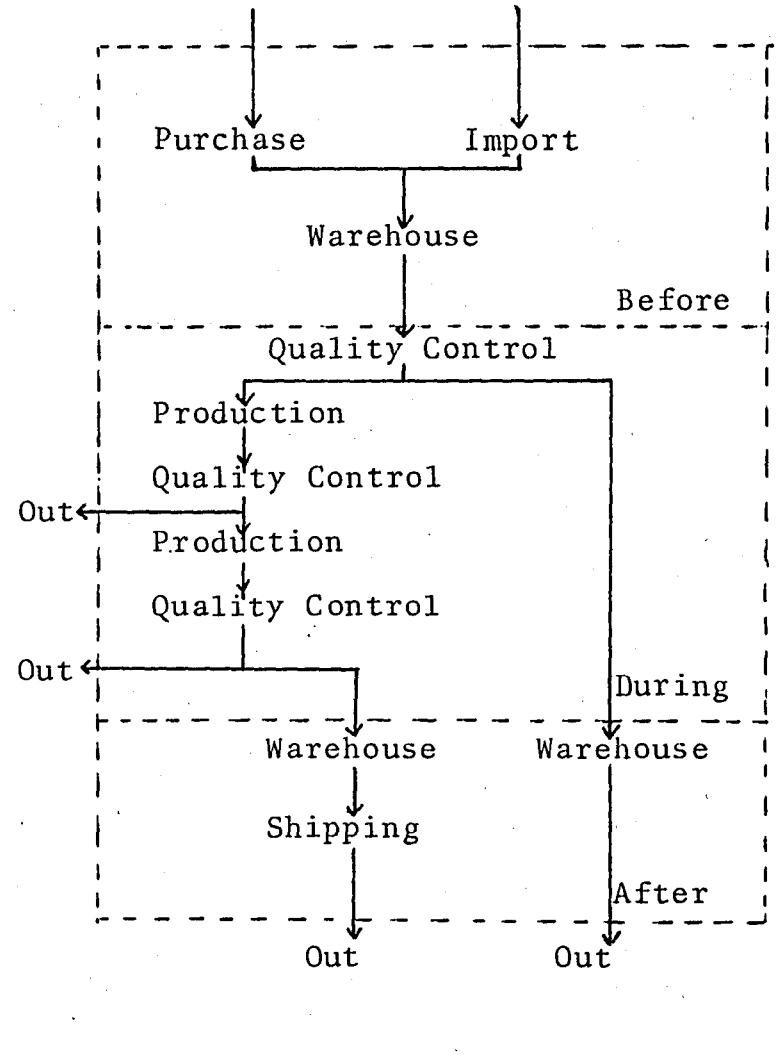
FIGURE 8.14.   Material Flow in
                       Time for Paint
                       Company.
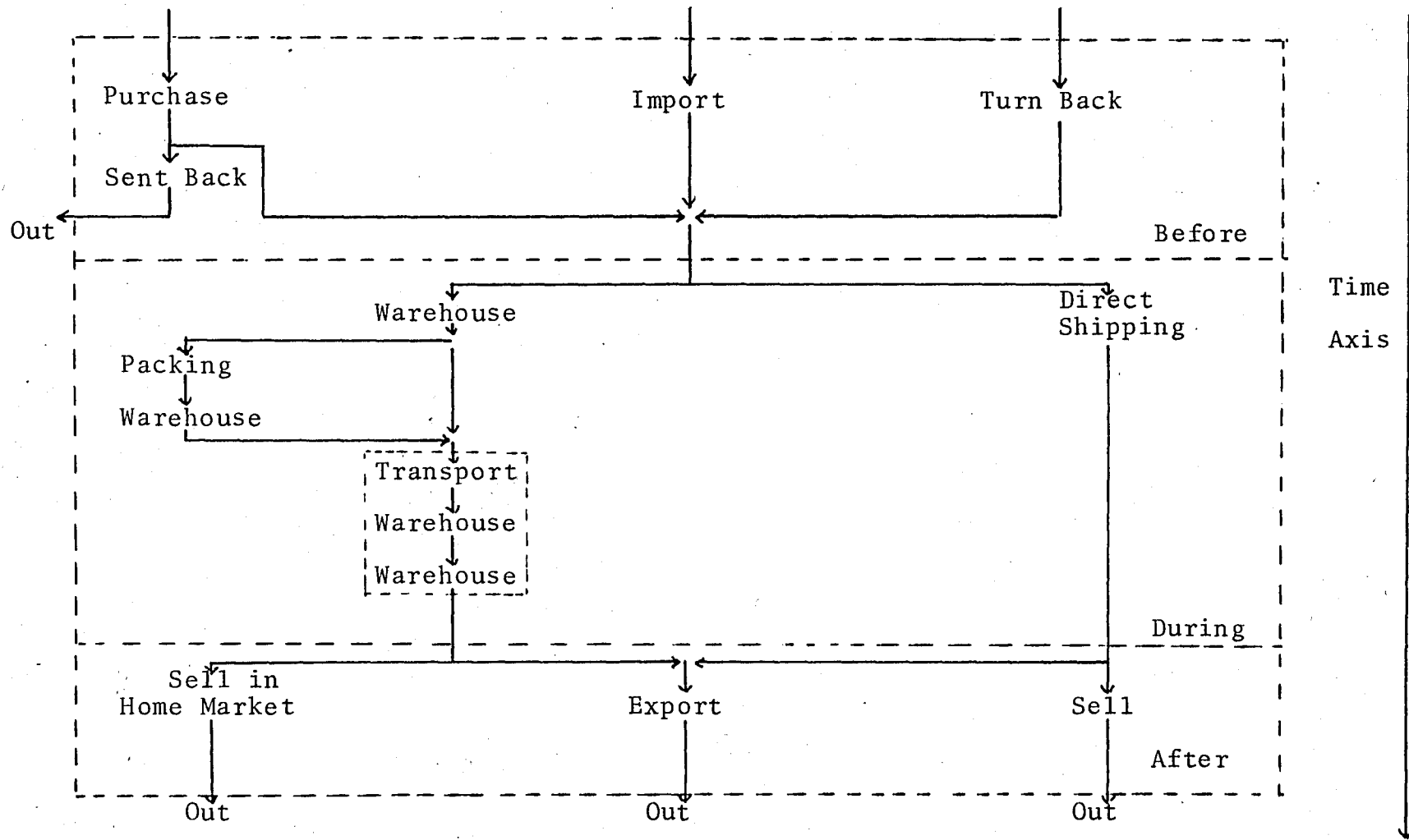
FIGURE 8.15. Material Flow in Time for Marketing Company.
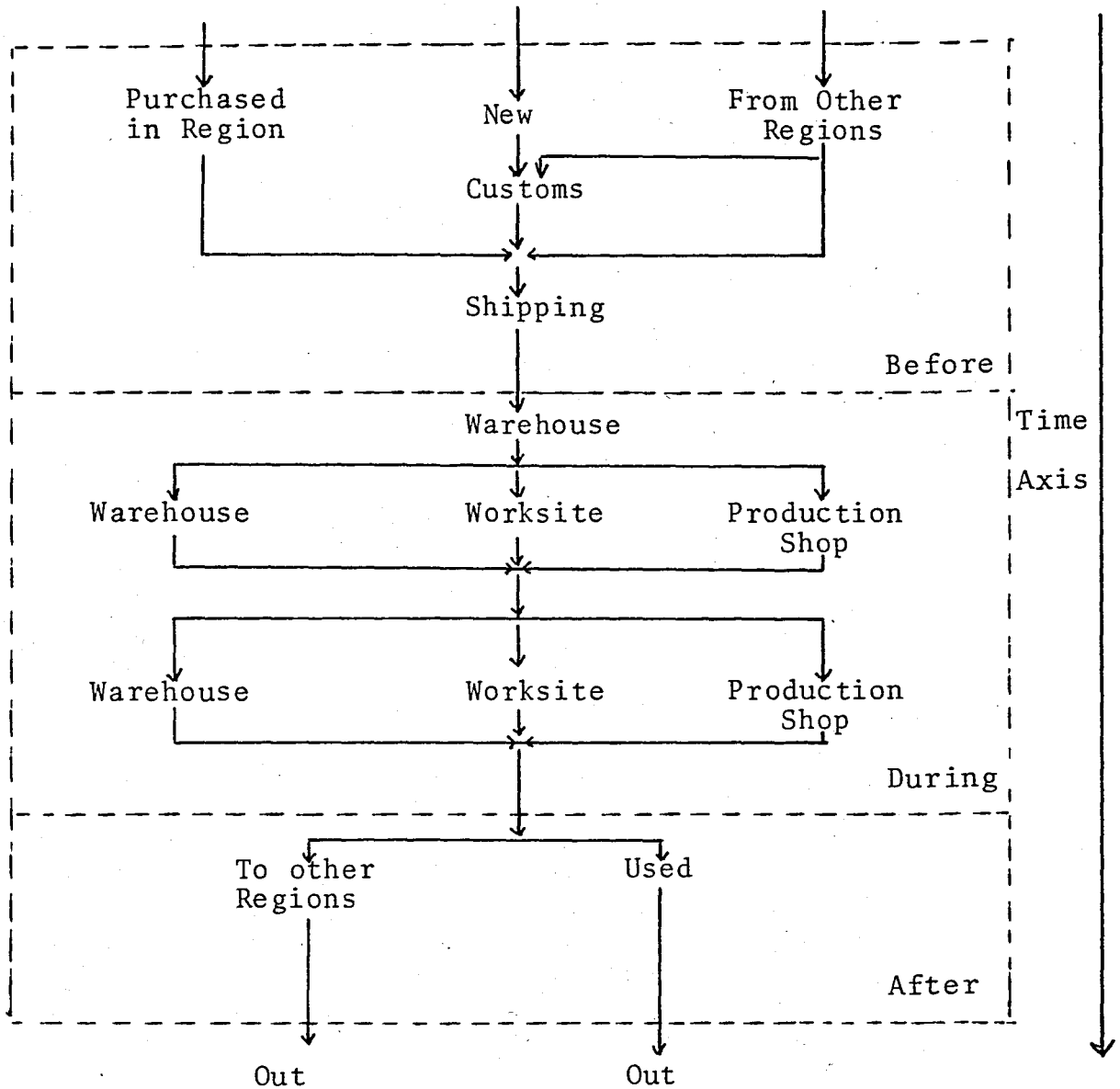
FIGURE 8.16. Material Flow in Time for Regions of the Construction Company.

IX. SYSTEM CHARTS AND TIME LAYERS

In this section, all the companies activities are first mapped into system charts and then the time layers are designed accordingly. In all these steps, the time flows shown in the previous section are the essential guides.

As can be seen from the figures, the steps imply each other and they are all self-explanatory.

STAGE	PHASE	COMPONENTS				
		MATERIAL	MANPOWER	MACHINE	MONEY	INFORMATION
BEFORE	PLANNING	DECISIONS ABOUT WHEN TO BUY. CONTRACTS ORDERING	MANPOWER NEEDS DEMAND FROM OTHER WAREHOUSES	FEASIBILIT REPORT	PLANNING THE SOURCES OF MONEY	SUPPLY THE REPORTS
BEFORE	EXECUTION	IMPORT / PURCHASE SHIPMENT/ DISTRIBUTE	SEARCH / APPLICATION COMINGS FROM OTHER WAREHOUSES	IMPORT/ PURCHASE SHIP MOUNT	GET THE MONEY	DATA PROCESSING
BEFORE	CONTROL	WAREHOUSE IN	REGISTRATION	RECORDS & CATALOGUES	RECORDS PUT THE MONEY ON CASH / BANK	DATA COLLECTION
DURING	PLANNING	WHERE & WHEN & HOW MUCH TO STORE? HOW TO PACK?	DECISIONS ON WORK TYPE	PLANNING THE PRODUCTION		SUPPLY THE REPORTS
DURING	EXECUTION	KEEPING / PACKING	WORKING	USED. WHEN BROKEN, REPAIRED	KEEP THE MONEY	DATA PROCESSING
DURING	CONTROL	WAREHOUSE OUT STORAGE IN/OUT	WORK HOURS, LEAVE DATES'S RECORDS	RECORDS OF USAGE. TIME & FAILURES		DATA COLLECTION
AFTER	PLANNING	WHERE, WHEN, HOW TO SHIP? CONTRACTING	FIRING PLANS DISPLACEMENT PLANS	FEASIBILITY OF SALES DISPLACEMENTS' PLAN	WHEN, HOW MUCH TO SPEND? WHERE TO INVEST?	SUPPLY THE REPORTS
AFTER	EXECUTION	SHIPMENT EXPORT / DISTRIBUTION	SEPARATIONS. GOING TO OTHER WAREHOUSES	SALES, DISCARDING, SENDING TO OTHER WAREHOUSES	SPENDING/INVESTING	DATA PROCESSING
AFTER	CONTROL	ANALYSIS OF SALES DOCUMENTATION GIVING BACK	FILING THE NAMES & PERSONNEL RECORDS	FILING THE TYPES AND CAPACITIES	RECORDS	DATA COLLECTION

MARKETING COMPANY
SYSTEM CHART
TABLE : 9.1

STAGE	PHASE	C O M P O N E N T S				
		MATERIAL	MANPOWER	MACHINE	MONEY	INFORMATION
BEFORE	PLANNING	DECISIONS ABOUT WHERE TO BUY, QUANTITY, QUALITY. CONTRACTING ORDER	MANPOWER PROGRAMS	FEASIBILITY REPORT	SOURCES OF MONEY BANKS / CREDITS	REPORTING
BEFORE	EXECUTION	IMPORT / PURCHASE SHIPPING	SEARCH/ APPLICATION TEST OF QUALITIES	IMPORT / PURCHASE SHIP	GET THE MONEY	DATA PROCESSING
BEFORE	CONTROL	WAREHOUSE IN/OUT CONTROL ON QUALITY	REGISTRATION	QUALITY CONTROL	RECORDS PUT THE MONEY IN CASH / BANK	DATA COLLECTION
DURING	PLANNING	DESCRIPTION OF PROCESS. USAGE TECHNIQUES. PROD. PLANS	DECISIONS ON WORK DEPARTMENTS	MOUNT USAGE INFORMATION PRODUCTION PLANS		REPORTING
DURING	EXECUTION	TRANFORMATION PROCESSING	WORKING	USAGE	KEEP THE MONEY	DATA PROCESSING
DURING	CONTROL	WAREHOUSE IN/OUT QUALITY CONTROL	HOURS OF WORK DATE ON LEAVE	REPAIR / MAINTENANCE		DATA COLLECTION
AFTER	PLANNING	WHEN & HOW TO SEND	FIRING PLANS	FEASIBILITY OF SALES	WHERE, WHEN, HOW MUCH TO SPEND / TO INVEST	REPORTING
AFTER	EXECUTION	SHIPPING	SEPARATIONS	SELLING/ DISCARDING	SPEND / INVEST	DATA PROCESSING
AFTER	CONTROL	REASONS & RECORDS OF GIVING BACK	FILING PERSONNEL RECORDS	FILING THE TYPES & CAPACITIES	RECORDS	DATA COLLECTION

TRUCK PRODUCTION COMPANY
SYSTEM CHART
TABLE: 9.2

STAGE	PHASE	C O M P O N E N T S				
		MATERIAL	MANPOWER	MACHINE	MONEY	INFORMATION
BEFORE	PLANNING	How much to ship? Where to buy/to bring from? Order	Planning the required manpower. From where, when?	Feasibility report market searches.	Sources of money credits /budget / bank /payment corte	Reporting
BEFORE	EXECUTION	Import / ship purchase	Search. Examination send. Permission of leaving	Import / bring ship / purchase	Getting the money	Data processing
BEFORE	CONTROL	Warehouse in/out keeping S→W W→S	Registration	Quality control	Put the money in cash / bank	Data collection
DURING	PLANNING	Workplans. Worksite's plans. Shipment plans	Which work unit? How much to work? Next work unit?	Mount / usage info. Which unit to send to? Repair periods		Reporting
DURING	EXECUTION	Construction production	Working sending to other work units	Usage	Keep the money	Data processing
DURING	CONTROL	Production control warehouse in/out	Work hours / work units. Dates on leave / on back	Repair & maintenance, hours worked in each work unit		Data collection
AFTER	PLANNING	Where, how, when to ship amounts demanded by other regions?	Firing plans/ sending plans, demands from other regions	Feasibility on sales, on sending to other regions	Spending plans, investment plans transfer plans	Reporting
AFTER	EXECUTION	Shipment/export	Separation/sending to other regions	Sell / discard / send to other regions	Spend/ invest transfer	Data processing
AFTER	CONTROL	Documentation	Filing the names and personnel records	Filing with respect to other regions	Accounting records	Data collection

CONSTRUCTION COMPANY (one region)
SYSTEM CHART

TABLE: 9.3

STAGE	PHASE	C O M P O N E N T S				
		MATERIAL	MANPOWER	MACHINE	MONEY	INFORMATION
BEFORE	PLANNING	DECISIONS ABOUT WHERE, WHEN, HOW MUCH TO BUY. QUALITY. CONTRACT	MANPOWER PROGRAMS	FEASIBILITY REPORT	SOURCES OF MONEY BANKS / CREDITS / BUDGET	SUPPLY THE REPORTS
BEFORE	EXECUTION	PURCHASE / SHIP	APPLICATION TEST OF QUALITIES	IMPORT / PURCHASE SHIP	GET THE MONEY	DATA PROCESSING
BEFORE	CONTROL	WAREHOUSE IN/OUT QUALITY CONTROL	REGISTRATION	MOUNT QUALITY CONTROL	RECORDS PUT THE MONEY IN CASH / BANK	DATA COLLECTION
DURING	PLANNING	DESCRIPTION OF PRO-CESS. RESULTS OF Q.C. PRODUCTION ORDERS	DECISIONS ON WORK DEPARTMENTS	USAGE INFORMATION & TECHNOLOGY. PRODUCTION PLANS		SUPPLY THE REPORTS
DURING	EXECUTION	PROCESSING	WORKING	USAGE REPAIR / MAINTENANCE	KEEP THE MONEY	DATA PROCESSING
DURING	CONTROL	SAMPLING. QUALITY CONTROL. WAREHOUSE IN / OUT	HOURS OF WORK LEAVE DATE	REPAIR & MAINTENANCE RECORDS		DATA COLLECTION
AFTER	PLANNING	WHEN, WHERE, HOW TO SHIP? POTENTIAL PLANNING	FIRING PLANS	FEASIBILITY OF SALES	WHEN, HOW, HOW MUCH TO SPEND / INVEST?	SUPPLY THE REPORTS
AFTER	EXECUTION	DISTRIBUTION / SHIPMENT	SEPARATIONS	SELLING / DISCARDING	SPEND / INVEST	DATA PROCESSING
AFTER	CONTROL	STATISTICS. RECORDS. GIVING BACK	FILING THE RECORDS	FILING THE TYPES & CAPACITIES	RECORDS	DATA COLLECTION

PAINT PRODUCTION COMPANY
SYSTEM CHART
TABLE: 9.4
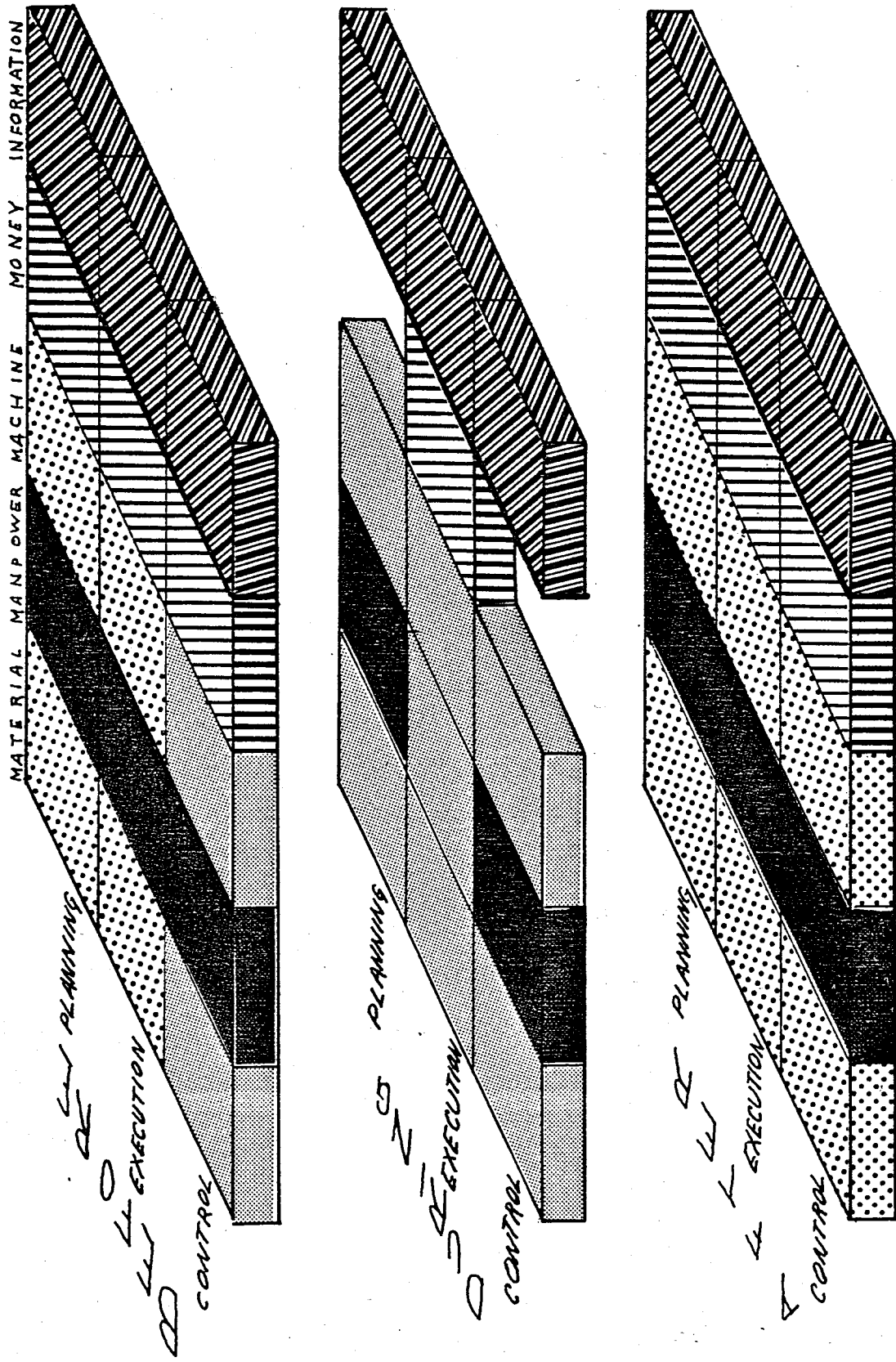
TIME LAYERS
FOR MARKETING COMPANY
Fig : 5.2
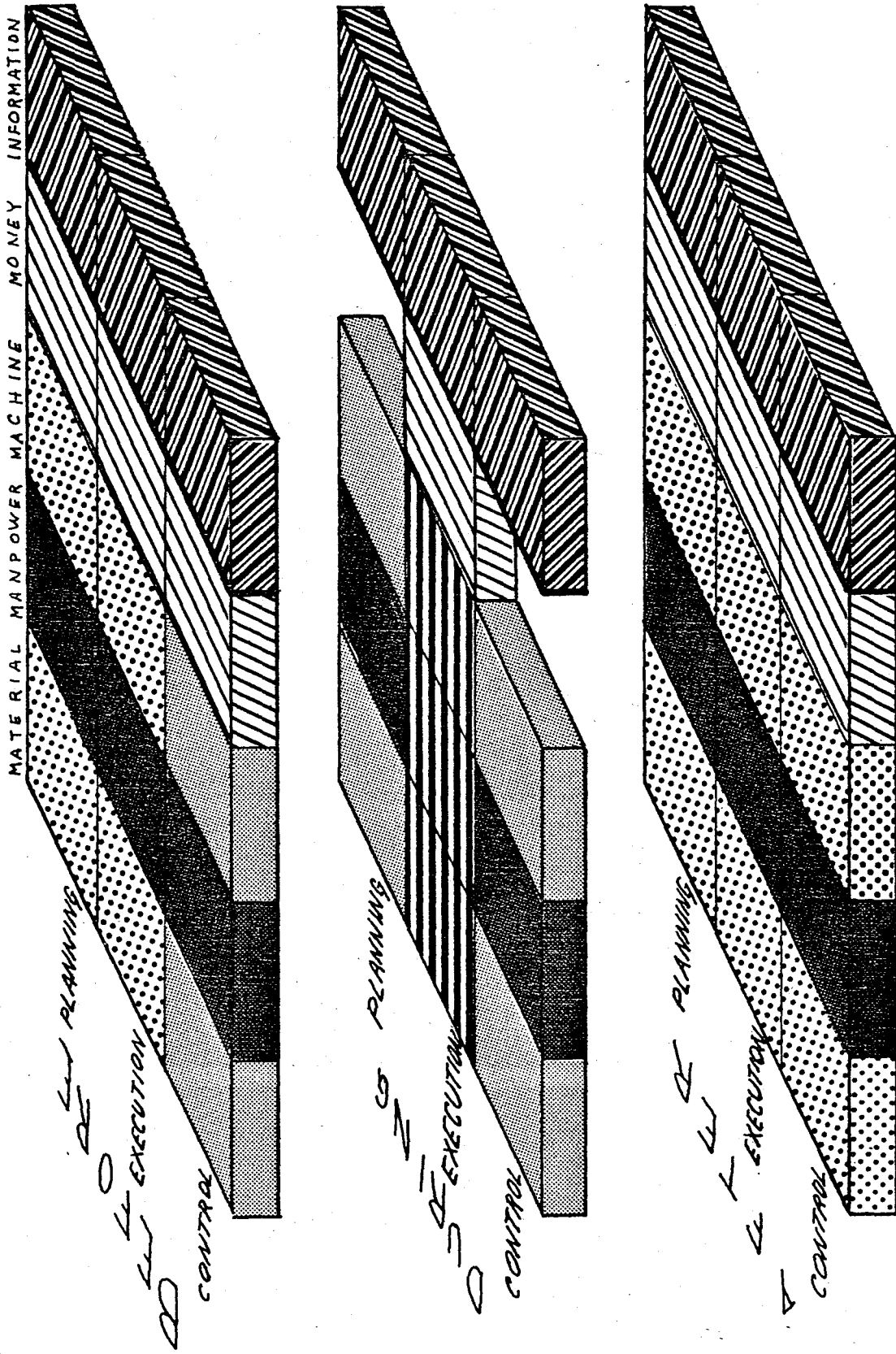
TIME LAYERS

FOR PAINT PRODUCTION, TRUCK PRODUCTION AND CONSTRUCTION COMPANIES

FIG :9.1

X, ORGANIZATION OF COMPANIES

10,1, DEPARTMENTAL ORGANIZATION

As it is noticed, in the previous section, each box
of time layers is shaded in a different pattern. This is
to distinguish the departments assigned to these boxes.
Although there are various ways of coupling the activities
and the departments, this way of distribution ensures the
following conditions:

    a.   Each component is assigned to as few a number
        of departments as possible. This will assure
        the components to be followed at each phase by
        specialized departments.

    b.   The "procurement and sell department" is specia-
        lized in the relations of the company with other
        firms. It knows the market: where to buy the
        materials, what the prices are, what the forma-
        lities are, imposed by laws for the two compo-
        nents: material and machine. The procurement

and sales of machine could be assigned to a different department but since this type of activity does not occur frequently, it would be meaningless.

c. In each production company, there should be a department which plans the details of production and supplies engineering support. Such a technical devision is assigned to planning and control phases of the during stage. Although it is the case in the three companies, the execution phase is also accomplished by the same department, because the activities involve all the stages.

d. The "personnel department" deals only with manpower in all stages. It is specialized then in human relations and orientation of workers and employees.

e. The "finance department" deals only with monetary affairs such as banks, cash, credits, etc. It seems that the "accounting department" is omitted, but the accounting is in fact a sequence of registration processes, and all the bookkeeping affairs will be arranged by the "data processing" department once the required data is fed.

    f.   In all three companies, except the marketing

firm, the production phase is assigned to an

individual department which dominates three

companies. This is because the production is

a synthesis of these three components, namely

material, machine and manpower. The employees

working in bureaus are administrated by the

managers of the firms who will form a "virtual

department" as will be explained later.

An important fact is that the departments' authori-
ties and responsiblities are restricted at some limits.
Moreover, every department can control the others not di-
rectly but as watching the consequences of the execution.
Moreover, the group which performs the production is not
responsible from other administrative activities and guided
by plans. Although the production data is not generated
at the production steps, it can be heavily controlled by
the "engineering department". The uniformity of department
organization of all the firms are to be notified.

10.2. INFORMATION AND DECISION PATHS

In this part, the information and decision links will
be analyzed. For the time being, each region of the con-

struction company and the other three firms (truck, paint
and marketing) have their system charts, time layers which
imply their departmental organizations. Since all the work
regions belong to the same construction company, there
should be a center where the administrative is present.
This center has also a system chart representing the whole
company. The material of this chart is the regions. Since
there should be some personnel working and there are mone-
tary activities, they are well defined components too. The
fixed assets excepted, there is no machine component, but
the information is still accompanying the other M-components.

The before stage of this system chart represents the
organization and plans for new regions and projects. The
whole regions are in fact represented by the during stage
of this central system table. The after stage of this table
is reached when all the projects in a region are completed
and the region is going to be closed. Of course, the mana-
gers assume and we do not wish the central activities to go
totally to the after stage which means that the company goes
to bankruptcy.

The information goes up all the time from the regions
by the "information link" and the decisions taken in the
center are sent through the "command lines". There are four

command lines, each of them belonging to one of the M-components and related to the departments dealing with these components.

As shown in Figure 10.1, the information is collected from departments in regions at the control stages of the M-components. They are processed and the reports are supplied to both planning phases and to the central system table. The information flow going up, starts from the planning phases of all stages (where the reports are prepared) to the control phase of the during stage of the central system table where they may be processed once more (for example for consolidation purposes). The reports are got at the planning phase of the central table, the decisions are taken and they are ordered to regions in the execution phases. The controls are again performed through the reports sent from the regions.

The holding company has also its own systems table possessing exactly the same characteristics as the central system table of the construction company. The only difference is that the subordinates of this table are the companies themselves. The relations are represented in Figure 10.1, in terms of four command lanes and one information line.

CENTRAL SYSTEM TABLE
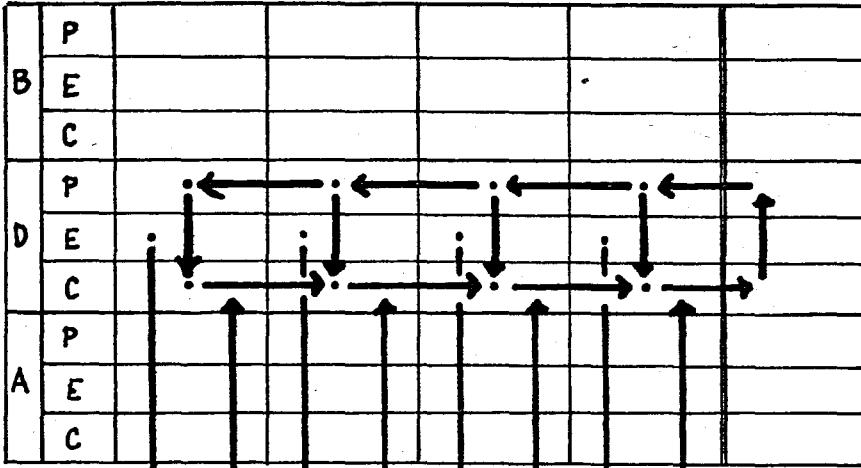
REGIONAL SYSTEM TABLES
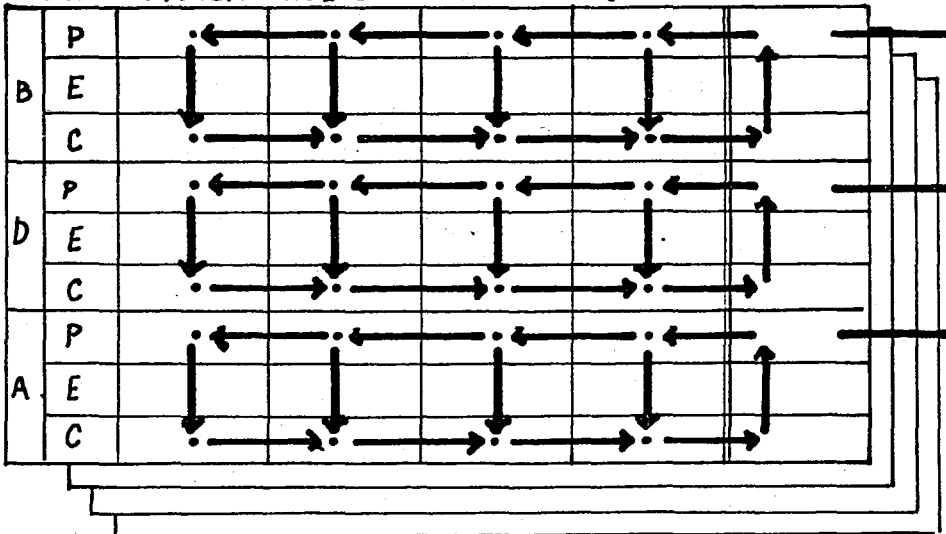
INFORMATION PATHS AMONG SYSTEM TABLES

FIG: 10.1

Note that the different companies are not communicating with each other directly which seems not abnormal since the coordination can only be done by the holding company. Furthermore, one can easily remark that the main storage unit should be located in the holding company. If the firms are located away from each other (which is certainly the case for the construction regions), the network is based on the central computer. Since no two companies are allowed to dialogue, the system will be neither costly nor complex.

A second note is the fact that this computer network has the same form as the organization chart, i.e., centralized organization is imposed.
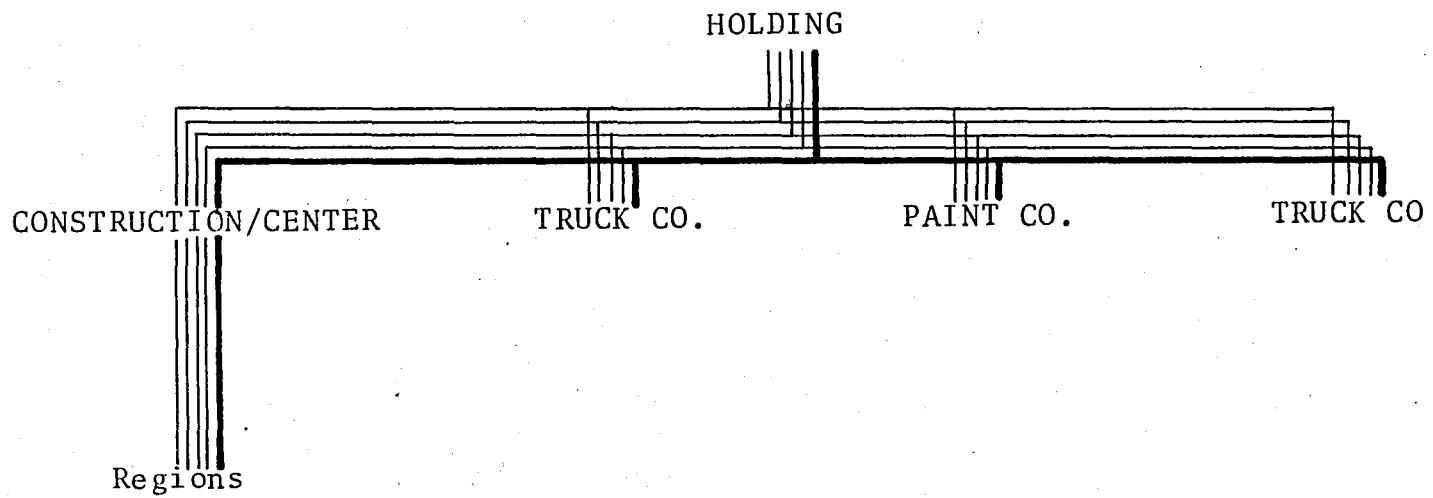
FIGURE 10.2.   Information Line and Command Lines Among Companies.

XI. TYPES OF DATA

At this level, an assumption is needed: If there is a data in a given department, it can be transferred to the computer by this division. By suitably designing the sub-department, one can solve the problem of transferring data from a given department and therefore justify this assumption. For example, a warehouse employee can punch the part number and the quantity that was sent or a bookkeeper in the finance department can enter how much is paid in cash on a given day. All these activities can be assumed to be performed every day. There may be some objections like: "the books can only be written at least in one week because there will be transient accounts". Well, by a suitably designed accounts list, such a problem can easily be handled.

According to the above assumption, a data base administrator is able to know what type of data to get from which department. In this section, the name of the counters and the corresponding department responsible are listed.

11.1 TRUCK PRODUCTION COMPANY

A. Material

- Material order form (procurement department)

- Warehouse entrance form of material (engineering department)

- Warehouse leaving form of material (engineering department)

- Part List updates (engineering department)

- Material supply form (to production shop) (engineering department)

- Finished goods entrance form (from production shop) (engineering department)

- Quality control results (engineering dept)

- Demand of materials (Sales department)

- Shipment of materials (Sales department)

- Material supply plans (engineering dept)

B. Manpower (All the data is supplied by the personnel dept)

- Registration form

- Leaving form (including compelling reasons)

- Changes in position/family/department

- Pay roll

- Separation of workers

- Manpower plans

C. <u>Machine</u> (All the data is supplied by the
              Engineering Department)

- Machine characteristics' records

- Repair and maintenance records

- Spare part list

- Spare part supply forms

- Spare part demand forms

- Feasibility reports on machine investments

- Production plans

- Machine sales report

(Only the last type of information is fed by the
Sales department.)

D. <u>Money</u> (All the data is supplied by the finance
            department)

- Journals

- Credit plans

- Credit records

- Cash reports

- Import records

- Bank accounts' counters

- Credit certificates

- Budgeting

The counters about manpower, machine and money will
be more or less the same, so they will not be repeated in
the following firms unless there are additions.

11.2. PAINT PRODUCTION COMPANY

A. Material

- Material order form (procurement department)
- Warehouse entrance form (engineering dept)
- Warehouse leaving form (engineering dept)
- Material list updates (engineering dept)
- Material supply form (engineering dept)
- Samples sent to quality control (engin. dept)
- Results of quality control (engineering dept)
- Demand of goods (sales department)
- Shipment of materials (sales department)
- Material supply plans (engineering dept)

11.3. MARKETING COMPANY

A. Material

- Material order form (procurement department)
- Warehouse entrance form (administration dept)
- Warehouse leaving form (administration dept)
- Material list updates (administration dept)
- Packing records (administrative department)
- Regional sales' records (sales department)
- Export records (sales department)
- Market search and competitors reports (sales department)

B. Money

Besides the records mention in section 11.1, the data about exports should be fed by the finance department.

11.4. CONSTRUCTION COMPANY (REGIONS)

- Material order form
- Warehouse entrance form
- Worksites supply form
- Production shops supply form
- Material list updates
- Material supply plans
- Worksite reports

(All the records are fed by the engineering dept.)

11.5. SOME EXPLANATIONS

Although the contents of the counters mentioned above were examined in their minute details during the preparation of the work, they are not included here. This is because, the records of the schema that is drawn in the following sections were derived directly from this work. In other words, the contents of the counters can be directly determined by examining the records forming the schema. On

the other hand, one cannot further subdivide a given coun-
ter since the phases at which they should be prepared are
fixed, however, some of the information can be neglected.

If the company is organized accordingly and if the
computer system allows, some of these counters can be ne-
glected and the data can be directly fed to the processor
from on-line terminals.

XII. DESIGN OF SCHEMA

12.1. A GENERAL VIEW OF THE SCHEMA

All the previous work is summarized in this section in a schema which is shown in the appendix. It is composed of 8 areas. Each of truck production, paint production and marketing companies is viewed as an individual area. For illustration purposes, one single region is assumed. However, if there are many of them, the consolidation is done at the center. The activities in the central organization of the construction company is described in a separate area as well as the holding company. The consolidation records are also collected in a separate area. In the meantime, the inter-area relations respects the links described in section 10.2. The general views of areas are represented in Figure 12.1.

The desing of this schema is given in the appendix together with the related CODASYL declaration program.

```
                        HOLDING.CONSLDT
                     Consolidation of all
                          the group


                                              HOLDING
                                           Holding Company


            CONSTRN.CONSLDT
            Consolidation of
            Construction records
                                                                    MARKETING
                                                                    Marketing Co.


CONSTRN.CENTER
Central Organiz.
of Constrn. Co.             TRUCK                   PAINT
                        Truck Prod. Co.         Paint Prod. Co.


            CONSTRN.REGION
       Regions of Construction
```
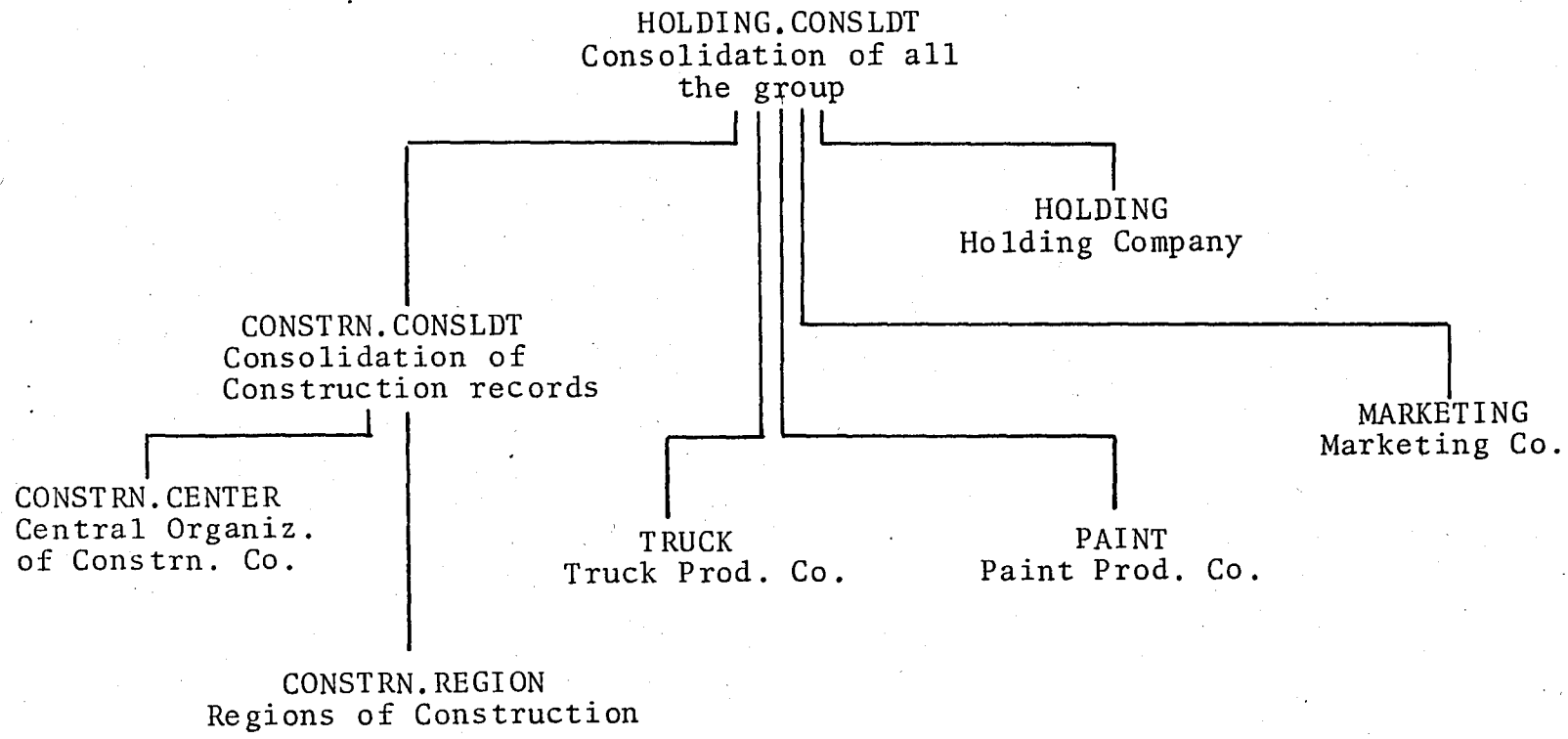
FIGURE 12.1. A General View of the Areas.

12.2. POINTER ORGANIZATIONS

All the set types that are encountered in the schema are defined in this section. The deletions, updates and insertions are explained on these types assuming owner records have been already accessed. This gives the possibility to explore the schema as soon as the set types are defined.

TYPE 1: Essential Type (< - >>)
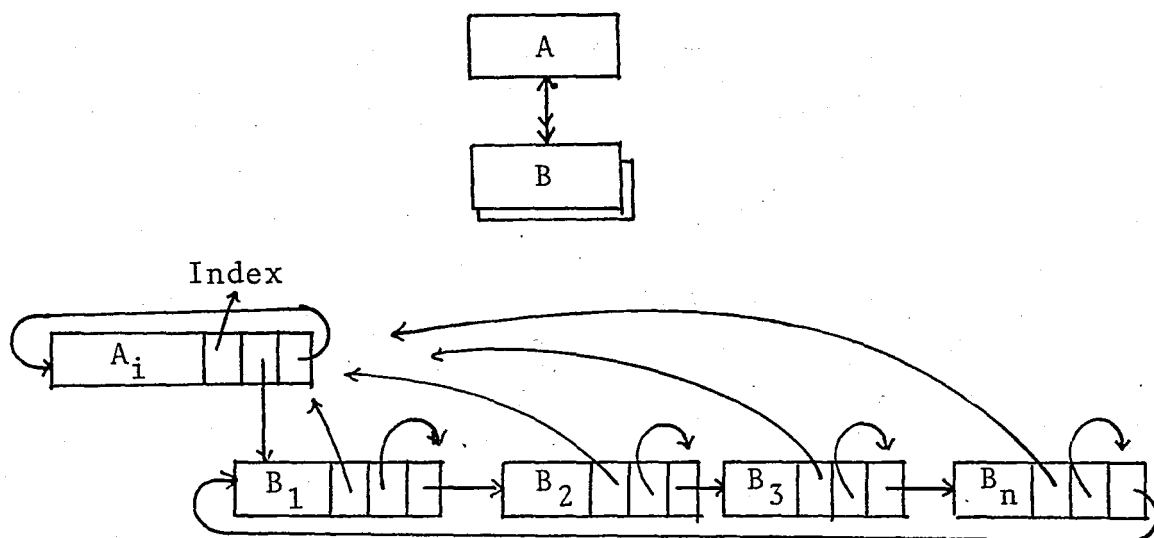
FIGURE 12.2. An Instant of Set Type 1.

Searching a record B_k in a list of n records:

Expected No. of accesses $= \sum_{k=1}^{n}$ kx Probablity of k^{th} record is the required one

$$= \sum_{k=1}^{n} k \times \frac{1}{n} = \left| \frac{n+1}{2} \right|$$

where the brackets | | show that the decimals are to be completed to the next natural number.

Insertion of a record in the list will go through the following steps:

(i) Step through the chain to determine the correct position for insertion

(ii) Modify the chain of the record before

(iii) Load the pointers of the new record

(iv) Add the record to the overflow area.

For the first step, the expected number of accesses is $\frac{n+1}{2}$ for a chain with n records. For the 2nd and 4th steps, one access per step is sufficient. Note that the third step does not require any accesses because the new record is written on the disk at the fourth step. Therefore:

$$\text{Expected No. of accesses} = |\frac{n+1}{2}| + 1 + 1$$

Deletion of a given record will require less accesses than the insertion because we assume the deleted record keeps staying in the file although it is no longer chained with others. Then the following steps will be followed:

(i) Determination of the record to be deleted

(ii) Change the next pointer of the previous record
with the one of the deleted record

Expected No. of accesses = $\left|\frac{n+1}{2}\right|$ + 1

TYPE 2: (< - >)

(a)   (b)
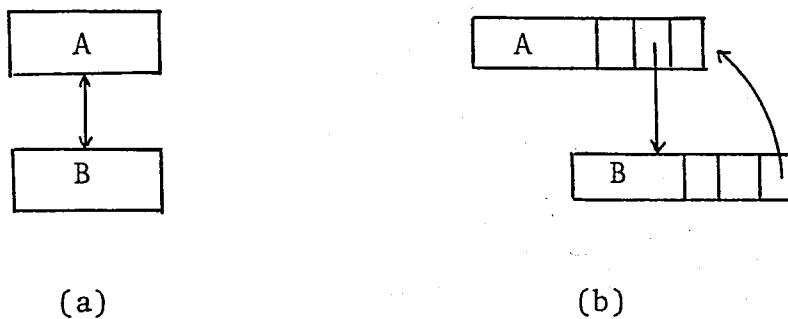
FIGURE 12.3. Set Type 2.

As it is clearly noticed, it is a very simple case
of Type 1 set mentioned above.

TYPE 3: (- >)
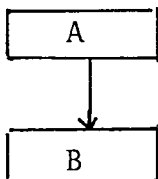
Although this type of set is ready on the schema, according
to pointer declarations it will not exist and when this

link is reached, the Type 2 set should be understood,
i.e., there will always be access to the owner record.
Such sets exist in the schema because there are certain
owner records that nobody desires accessing from its member.

TYPE 4: (->>)
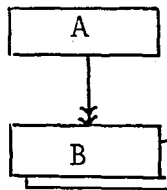
This type does not exist either as far as pointer organi-
zation is concerned, since it is a special case of Type 1
set and this last one is well defined. Type 4 set repre-
sents the fact that nobody will access record A from re-
cord B although it is possible.

TYPE 5: (A not quite flat record)

Record A

Although it is not a real set, the pointer organi-
sation of this record type requires some explanation. In
a not quite flat record, there may multiple values of an
attribute associated with one entity. If variable-length

records were used, then there would be no problem. Since
this is not the case, there will be three choices: first,
the record can include more space than is needed, which
results in wastage of storage.

A_1	A_2	A_2	A_2				
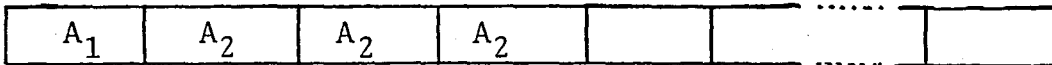
First method for storing all A_2's.

Second, the records A_2 can be separated from A_1. This last
one points to an A_2 record and all the A_2's are chained
among them, which results in a Type 4 set.

A_1

A_2
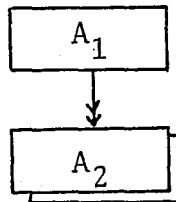
The third alternative which is also the one that is
imposed in this work, is the storing k of the A_2 fields and
n with A_1, and chain the next k-type with this record, as
shown in Figure 12.4.

To decide an optimal value of k, one can draw the
graph shown in Figure 12.5 and read the value at the point
where two curves intersect each other.
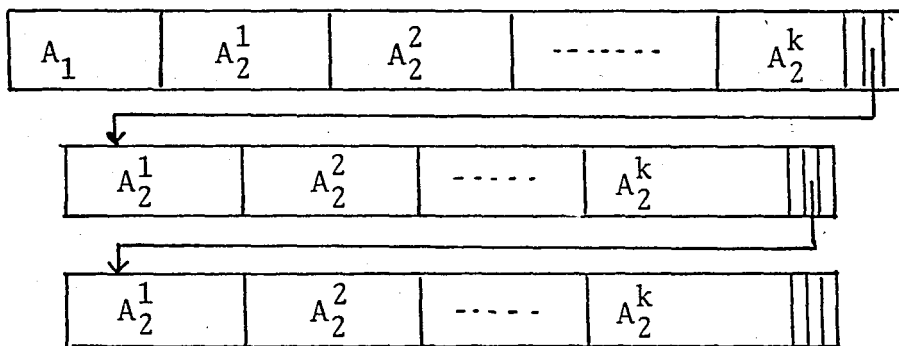
FIGURE 12.4. Chaining of Set Type 5.
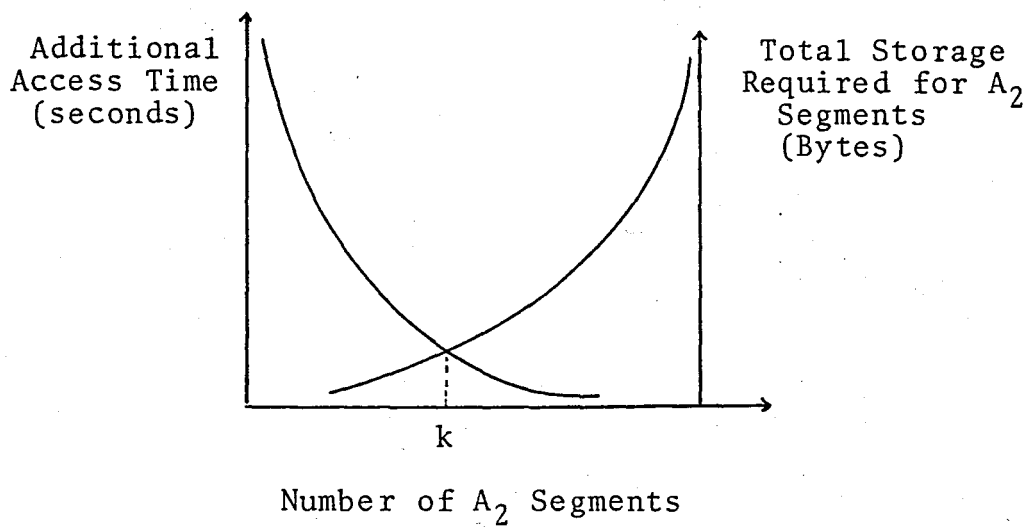
FIGURE 12.5. Optimal Length of Repetitions.

The following two types are not single sets, but they occur so frequently that they are worth studying.

TYPE 6: (<< - >>)
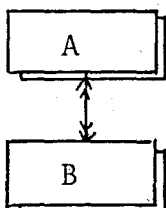
Since the many-to-many relationship is not defined,
as it is accustomed, the link is expressed by one auxiliary
record and two well defined sets (of essential type). On
the schema, there is no many-to-many relations seen but
instead, the following type is used.

```
        ┌───────────┐
        │     A     │
        └───────────┘
              ↕
        ┌───────────┐
        │     C     │┐
        └───────────┘│
         └───────────┘
              ↕
        ┌───────────┐
        │     B     │
        └───────────┘
```
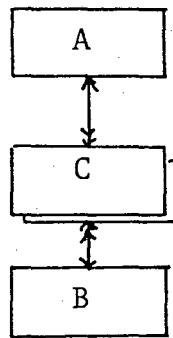
FIGURE 12.6.   Two Level Representation of Set Type 6.

An instant of this type is shown in Figure 12.7.

Search of A and B types of records are through the
same steps as illustrated for set Type 1, if they are
accessed from outside (another record D or index). As soon
as an A-record is located, the same process is repeated to
access a C-type record. AC-record being reached, it implies
directly a single B-record. As a result of this, to reach
a B from an A, the expected number of accesses is:

$$\left|\frac{n+1}{2}\right| \;+\; \left|\frac{m+1}{2}\right| \;+\; 1$$
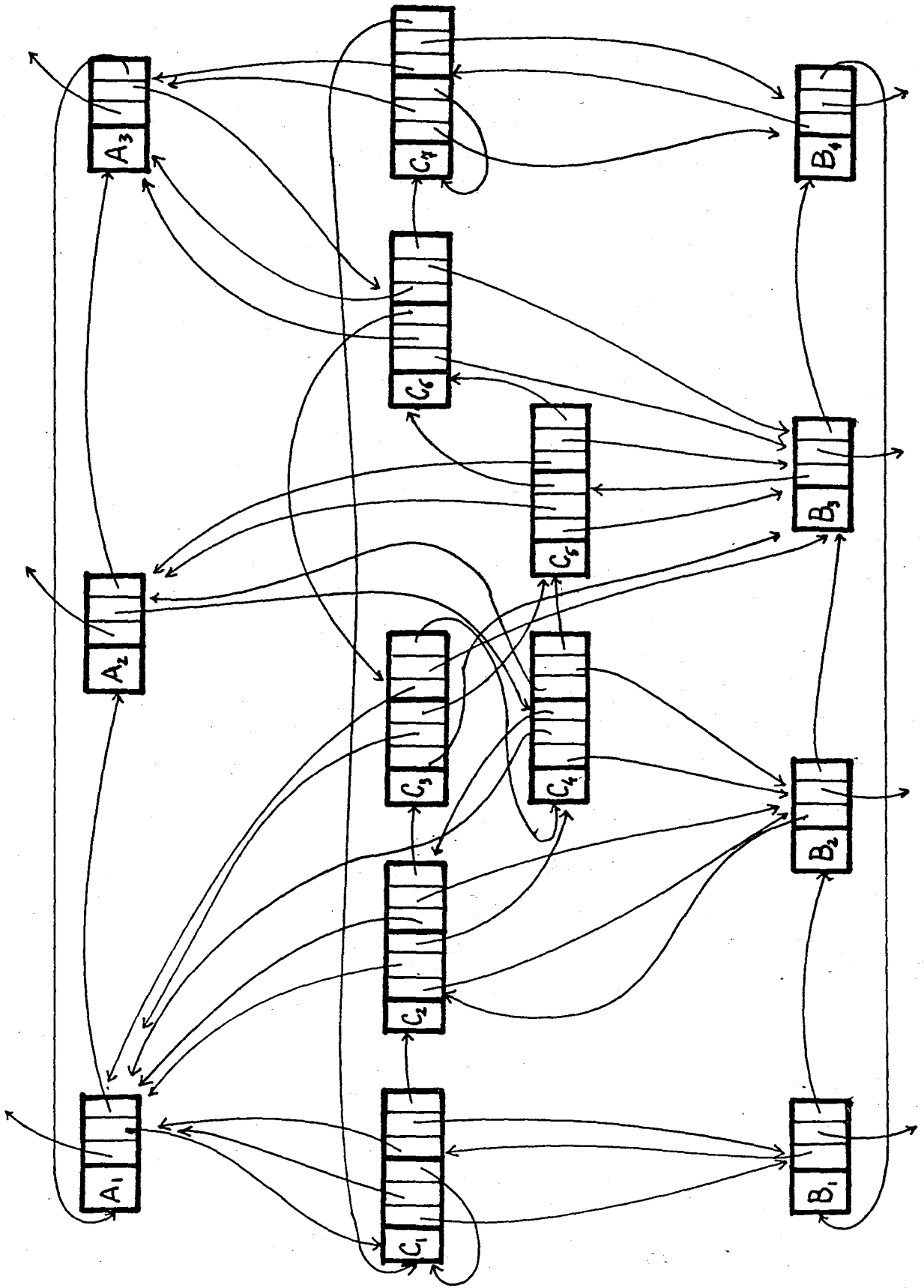
AN INSTANT OF SET. TYPE 6
FIG: 12.7

where n is the length of the A-chain and m is the average number of record in a C-chain given a specific A record.

Insertion of A-type record goes down the following steps:

1. Determine the correct position of the record to be added.

2. Modify the chain of the record before and load the address of the next record to the next field.

3. Create as many C-type records as required.

4. Link the C-records to the A-record to be inserted.

5. Go down to a C-record then to a B-record from one of the old A-records.

6. Determine the correct B-record that should be linked. If there is no such B-record, go to step 11.

7. Load this B-record's address to member of field of C.

8. Access to the C-record using the owner field of this B-record and go to the end of list of older C-records.

9. Modify the next of the record before to insert the newly created C-record.

10. Reaccess the B-record chain using the member field and go to step (4) for the next B-record to be linked. Keep going until all links are established. When there is no more insertions, go to step 16.

11. Create a new B-record.

12. Modify the chain of the previous record and load the next record's address to the next field.

13. Load the member and owner pointers field of newly created B-record.

14. Load this B-record address to the member and owner pointers field of C.

15. Go to step 6 if there are more B-records.

16. Write down all the new records to the appropriate overflow areas.

To illustrate these steps, suppose an example with 'a' A-records, 'b' B-records and 'c' C-records, 1 new A-record is to be inserted and linked to n B-records, m of them being new too.

Step 1   No. of accesses: $|\frac{a+1}{2}|$

Step 2   No. of accesses: 1

Step 3   No. of accesses: - (in the memory)

Step 4   No. of accesses: - (in the memory)

Step 5   No. of accesses: 2

Step 6   No. of accesses: $|\frac{b/n + 1}{2}|$ (N.B. files are in ascending order)

Step 7   No. of accesses: -

Step 8   No. of accesses: $1 + |\frac{C_1}{b}|$ Assume uniformly distributed chains

Step 9   No. of accesses: 1

Step 10   No. of accesses: 1

Step 11   No. of accesses: - (in the memory)

Step 12   No. of accesses: 1

Step 13   No. of accesses: - (in the memory)

Step 14   No. of accesses: - (in the memory)

Step 15   No. of accesses: 1 + n + m

In this procedure, the steps 4 to 10 are repeated n-m times plus step 16 is repeated m more times. Steps 11-14 are also repeated m times. As a result, the expected total number of accesses is:

$$|\frac{a+1}{2}| + 1 + 2(n-m) + n |\frac{b/n+1}{2}| + (n-m) ||\frac{c}{b}| + 1| + 2(n-m)$$

$$+ m + 1 + n+m = |\frac{a+1}{2}| + n |\frac{b/n+1}{2}| + (n-m) |\frac{c}{b}|$$

$$+ 6n - 3m + 2$$

Deletions of records will be much more simpler.
For this purpose:

1. Determine the correct position of the A-record
   to be added.

2. Modify the chain of the record before.

3. Access to a C-record and delete every owner
   and member pointers from C-records linking
   them to A.

Of course, in order to delete a B-record, it is meaningless
to access it from A through C, i.e., if a B-record is to
be deleted, the same procedure is followed.

TYPE 7:   (< - >>   < --- >>)
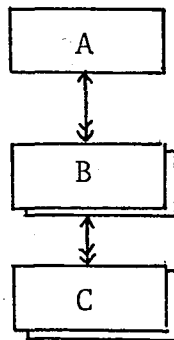
This is the representation of two level trees and it gives
possibility to the tree to grow downwards and/or horizon-
tally.

An instant of this type is shown in Figure 12.8.
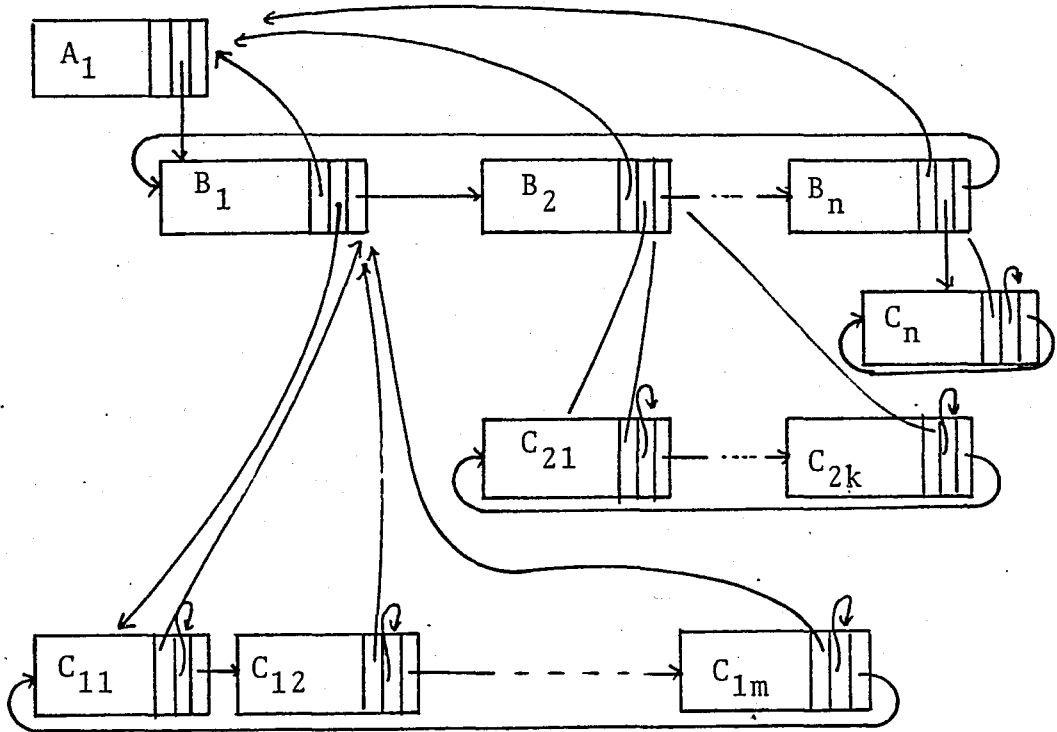
FIGURE 12.8.   An Instant of Set Type 7.

The searches, insertions and deletions on this type is similar to the cases of Type 1 with the only difference being that the sequence should be repeated as many times as the levels.

XIII. CALCULATION OF STORAGE NEEDS

13.1 NOTATION

In order to give the possibility to calculate the disk capacity requirement of such a system for any analogous example, first a notation should be introduced. The notation representing the number of records concerning the material components will be given individually for each company. However, those used for the other components except some cases of money, will be introduced only once for all the firms at all units.

A. <u>Construction - Region/Material</u>

Total number of regions	R
Number of warehouses in region r	w_r
Total number of warehouses	$W = \Sigma w_r$
Average number of parts in the list of each warehouse	p
Total number of part list records	$W \times p$
Total number of suppliers	S

Average number of parts per supplier S_p

All records are kept for a period of C months.

Total number of (yearly) demands $\quad\quad$ D

Total number of (yearly) invoices $\quad\quad$ I

Number of worksites per region $\quad\quad$ WS

Average monthly demand of worksite i $\quad$ dw_i

Total number of supplies $\quad$ $Sup = WS \times \Sigma \, dw_i \times R$

Total number of known processes $\quad\quad$ PR

Average number of different materials
$\quad\quad$ per process $\quad\quad$ MATPR

Average number of different worker types
$\quad\quad$ per process $\quad\quad$ MANPR

Average number of different machines
$\quad\quad$ per process $\quad\quad$ MACPR

Average number of projects in a given region $\quad$ PJ

Average number of buildings in each worksite $\quad$ BLD

Average number in subunits (floors) per
$\quad\quad$ building $\quad\quad$ U

Different types of work in each subunit
$\quad\quad$ (detail) $\quad\quad$ WRK

A given work is completed in "a" attemps in average

Total number of works in all regions $\quad$ $N = WRK \times R \times WS \times$
$$BLD \times U$$

B. Truck Company/Material

Number of different parts bought $\quad\quad$ NOP

Total number of suppliers $\quad\quad$ NOS

Average number of parts per supplier $\quad\quad$ S_p

Records are kept for a period of C months

Average number of quality tests per part T_p

Average monthly production per part $Prod_p$

Total number of tests per year: $T = T_p \times Prod_p \times C \times q \times NPW$

where q is the percentage of production tested,

NPW is the number of parts produced in the workshop

Average number of yearly demand for part p d_p

Total number of demands $D = NOPS \times d_p$

where NOPS is the number of parts that can be sold.

Each demand is shipped in "b" times.

We assume that each demand is satisfied

Total number of sales $SL = D \times b$

Number of orders for part "p" per month O_p

Total number of orders $O = O_p \times NOP \times c$

Each order is delivered in DEL times.

For each delivery, TD tests are done. There are TST different such tests.

There are DEPT departments in the workshop.

Average number of demands for part p per month from departments is m_p.

Total number of demands $DEM = NOP \times m_p \times c$

Each demand is supplied in SR times.

Total number of parts is represented by $PLT = NOP + NOPS + NPW$

Average number of entrances to warehouse

for part "p" per month EN_p

Number of models M

Average number of processes for production

of model i PRC_i

Total number of processes $PRC = \Sigma PRC_i$

Average number of different materials used

in one production $MATP$

Average number of different worker types

used in one production $MANP$

Average number of different machines

used in one production $MACP$

Average number of subparts for part p SUB_p

Average number of optional parts for part p OPT_p

Each machine m uses t_m different types of energy.

C. Paint Company/Material

Number of different materials NPP

Total number of suppliers NSP

Average number of parts are supplier SP_p

Records are kept over a period of months.

Average number of yearly demand for part p dpp

Total number of demands $DP = NOPPS \times dpp$

with number of materials that can be sold = NOPPS

Each demand is shipped in s times.

Total number of sales $\qquad$ SLP = DP x s

Total number of orders $\qquad$ OP = O_p x NPP x c

      where number of orders for past p month is O_p

Each order is delivered in DELP times.

For each delivery, TDP tests are performed.

There are TSTP different tests.

There are DEPTP departments in the workshop.

Average number of demand for material p per month = mpp

Total number of demands $\qquad$ DEMP = NPP x c

Number of parts produced in paintship $\qquad$ NPWP

Average number of entrance to warehouse for

      part p per month $\qquad$ ENP_p

Number of different recipes $\qquad$ REC

Total number of parts in PLTP = NPP + NOPPS + NPWP

Each recipe r has $PRODP_r$ production phases in average

Total number of production steps is $\qquad$ PRODP = Σ $PRODP_r$

Average number of different materials used

      per production phase $\qquad$ MAT

Average number of different worker types

      used per production phase $\qquad$ MAN

Average number of different machines used

      per production phase $\qquad$ MAC

Each machine m uses tpm different types of energy.

There are J different jobs per year.

At each phase p, there are QT_p quality tests.

At each phase p, there are q products resulting

Number of total quality tests $\quad Q = \underset{p}{\Sigma}\ Q\ T_p x\ q$

Average number of different information per test $\quad$ IN

Each information i proposes for n_i different materials

There are QT = J x q quality tests performed in one year.

From each production phase, k_p different by-products result

Over a year, number of by-products recorded is WP

   D. <u>Marketing/Material</u>

Number of warehouses	WM
Total number of parts	PM
Total number of suppliers	SM

Each supplier produces an average of SM_p parts.

Records are kept over a period of c months.

Number of export customers	NEXP
Number of domestic customers	NDOM
Average number of monthly demands of export customers	MDEXP
Average number of monthly demands of domestic customers	MDDM

Each order is satisfied in "k" shipment.

There are REPR representatives.

EAch representative is controlled CM times per month.

Orders to supplier are done upon demands from customers.

The delivery of materials are equal to the shipment number.

There are PPACK materials that should be packed out.

For each material to be packed, only one type of material is used.

Therefore there will be DM = c(MDEXP + MDOM) demands

and DELM = k x D deliveries.

There are a total of COMP competitors.

Each competitor sells an average of CS different materials.

E. <u>Personnel</u>

Number of personnel in Construction/region r P_r

Number of personnel in Construction/center P_c

Number of personnel in Truck Co. P_t

Number of personnel in Paint Co. P_p

Number of personnel in Marketing Co. P_m

Number of personnel in Holding Co. P_h

Total number of personnel   NOPER = $\Sigma P_r + P_c + P_t +$

$$P_p + P_m + P_h$$

The following variables are assumed to be the weighted averages.

Average number of foreign language spoken by personnel   FL

Average number of schools per person   SCH

Average number of references per person   REF

Average number of previous experiences per person   EXPR

Each person has worked in PW departments in the past.

Average number of children per person   CHLD

Total number of leaves per person   LVE

The workers of the construction company works on
more than one worksite. As the result of this fact,
the number of monthly work places and work day per
person will be higher than 1, say WPD.

For all the companies, there are DEPAT different depart-
ments and worksites.

There are WTP different worker types.

The exemptions are classified into EXEMP groups.

The tax ratios are subdivided into TR groups.

F. <u>Machine</u>

Number of machines directly working in construction
affairs   MR

NR of these MR machines are recorded in more than
one region.

Average number of regions for these NR machines   XR

Number of machines in Truck Co.   MT

Number of machines in Paint Co.   MP

Number of machines in Marketing Co.   MM

Total number of indirect machines   MI

Therefore, total number of machine records is:

$$NOMACH = MR + NR (XR - 1) + MT + MP + MM + MI$$

Each machines uses PWT different power types at an average.

In Construction Co., each machine is used in WMCH different worksites per month.

In other companies, each machine is reserved for an average of PRT parts per month.

Average failure rate per machine   FR per year

Average number of parts replaced each time   QM

Periodic maintenance rate (per year)   MNT

Each machine has an average of SPR subparts to be maintained.

Demand and supply of spare parts when substitution is needed.

Total failure record $F = FR \times NOMACH$

Total maintenance record $M = MNT \times NOMACH$

Total spare part demand/supply record $DSR = SPR(F + M)$

There are SM suppliers of spare parts; each supplying NMAV parts at an average.

The parts are ordered when they are needed.

The number of fixed assets   NFA

G. Money

All the group gets a total of IL import license, each of them concerning IM kind of materials.

At each time, the collaborate with IS suppliers who deliver order in SK times.

Total number of certificates of deposits   NCD

The balance sheet and the profit and loss statements
    will be automatically updated.

There will be L lines in each of them (B/S will then con-
    tain L Debit and L Credit lines), K of them being
    the titles of the groups.

These assumptions are valid for all companies. Therefore,

each result will be multiplied by COM = Total number of
    regions plus five + two consolidate areas.

In all companies, the accounts are analogue.

Average number of subsidiary accounts per
    ledger account   SAL

Average number of journal accounts per
    subsidiary account   JAS

There are LED ledger accounts.

Records will be kept over a period of c months.

The total of journal accounts is then   JAC = LED x SAL x JAS

Number of transactions per month   TRANS

The group work with BB banks, in BR branches through
    BACC accounts per branch.

There are NCR credits which are used by the whole group,
    the interest rates of each can change DUR times in
    a year according to terms.

Each credit is used at CGD different dates and paid back
    in CPD times.

There are NP payables and NR receivables records with NBD
bond details for the whole group.

The budget tables are organized such that the total number
of $DEPT_j$ department are at the lowest level. Then
are BUDAC accounts for each department. At each
level i, the blocks are grouped in lots of LEV_i
elements. There are NL levels. So the total of
budget level records is:

$$BDGL = \sum_j \; BUDAC \; (\sum_i^{NL} \frac{LEV_i}{LEV_i-1} + DEPT_j)$$

with $LEV_{NR} = DEPT_j$ for company j.

Ration reports are prepared n times per month

Total number of departments in truck and paint companies
is

$$DPTS = DEPT_{truck} + DEPT_{paint}$$

NPW is used as the total of number of models and recipe
per department.

For the marketing company, the payments from customers
are accepted over a period of h months.

Number of journal accounts corresponding to fixed assets
records is "x", to payroll records is "y" and to
ration records is "p".

For the purpose of illustration, the variables declared above are given some values which can represent medium sized firms. The lists in Appendix B show all the records and their lengths. Total number of records are given both in terms of variables and of the example value.

The names of records and pointers in Appendix B differ from the one declared in the program by one or two letters. This is because a same type of record is used in more than one area. Although the CODASYL language allows repetition of same type of records in more than one area, the record names are slightly changed to prevent possible confusion. However, the declarations are such that the values in the column of "total number of records" show the number of all the records in the schema over a period of c months.

13.2. STORAGE NEEDS OF THE EXAMPLE

To give a clearer view of storage requirements, let us analyze the figures obtained from the hypothetical example:

The total number of records that should be
stored is 3,071,983

These records require a storage area of

119,304,509 Bytes

The total number of pointers is:

7,684,368

As it was assumed in the previous section, each pointer set is composed of 3 fields. In order to scan all the addresses, each field should have a length of 4 bytes, which means a pointer set corresponds to 12 bytes. Therefore, the total need for pointers is:

92,212,416 Bytes

It is noted that the number of pointers is more than 2.5 times of the number of records. Moreover, their storage requirements ratio is 0.77. If instead of linking the records, they were duplicated, surely this storage requirement would be much more higher.

We assume that a fixed four bytes address is required for each record. This would result in

12,287,932 bytes

Some of the records are indexed. One can assume that sparse indexing can be used and the length of this

file is about one-tenth of the original one. As a result
of this, number of records in index files is:

59,766

Each index record being composed of two fields, one for
the key and the other for the pointer, the total storage
needs for index files is:

531,217 bytes.

As a result, the total disk capacity needed is
calculated to be:

224,336,074 Bytes.

XIV. RETRIEVAL OF INFORMATION

14.1. SOME FREQUENT QUERIES

In real life, the last step of such a work is writing the program. However, as already mentioned, there may be lots of different queries in a company according to the conditions. Some of them will be in the form of periodic reports, while there may be cases where a certain information is required for the first time and only once for a long period. These facts makes the listing of all possible queries impossible.

Essentially, the schema is designed such that every query will be supplied by the correct information. Since this is the case, what is interesting is the retrieval path and time. Some of the well known queries are studied below.

A. What is the total labor cost in department i in month j?

There exists more than one retrieval path. One can go for example, beginning from personnel list and control every record. Instead of this alternative, this information is reading in the record DEPT.STATISTICS. It is indexed with respect to department code. Let us assume a company with 20 departments and the area of this record is already accessed. Since the index files are assumed to be loaded in the memory, a chain of 10 records will be searched. Therefore, the average number of accesses is 6 according to the formula given in section 12.2.

B. What is the expected export in month i to the States?

The path is through records:

- CUSTMR.EXPORT
- MONTH.D
- ORDER.EXPORT

Assume: n customers, m of them being in the States
: k_n months recorded for each customer
: d_{kn} orders for each month k, for customer n

- Accessed to MONTH.D, all ORDER.EXPORT records should be scanned, i.e., d_{kn} accesses.

- Accessed to CUSTMR.EXPORT, expected number of

accesses for location month:

$$\left| \frac{k_n + 1}{2} \right|$$

Assuming the nation is expressed in the customer
code, since it is indexed,

$$\left| \frac{\frac{n}{10} + 1}{2} \right|$$

accesses are required for the first customer in the States,
then m accesses to scan all such customers. Therefore, the
total number of accesses is:

$$\left| \frac{\frac{n}{10} + 1}{2} \right| + m \cdot \left| \frac{k_n + 1}{2} \right| \cdot d_{kn}$$

For the following values:

$n = 50$ $k_n = 12$

$m = 6$ $d_{kn} = 0.5$

the total number of accesses is given to be 24.

Suppose average access time = 35 msecs.

Total retrieval time is then = 840 msecs.

It is possible to enumerate lots of such queries. However, there are a few of them that are not answered in companies although the managers desire knowing the answer. Two such quires follow.

    C.   It was told earlier that if the quality of paint (this is the case in soap and beer production too) does not conform to the standards, it may have to be discarded. In such a case, what would be the cost of this semi-finished product?

Just to satisfy this question, there is an individual record in area PAINT called W.I.P. By scanning the corresponding file, one can get an answer to such a question.

    D.   A second such question is the average actual stock holding cost. Today, the systems are designed such that the price of material in stock are calculated according to average cost principle. However, the above problem can be solved by FIFO (First In, First Out) method. One record is designed just to satisfy this question:

AVRG.STOCK.MONTH

to keep the past month's information. Furthermore, in the part list record, five fields are reserved for this purpose.

14.3. AN EXAMPLE OF COMPLEX QUERY

It is easily noticed that ordinary queries can be easily retrieved. In this last subsection before the conclusion, an example problem which can be solved only after at least a few days of study in the companies present today will be simulated:

"What is the answer that should be given to a certain demand?"

which is the crucial question asked by a salesman?

This query certainly involves many components because the following information should be retrieved:

- Cost of material
- Material needs
- Machine and manpower time availability
- The possible earliest shipment program

Such questions may be asked in any company, for example before adjudication in the construction companies. Just to specify the area, the problem will be simulated in the paint production company. It is assumed that once a record is reached, all its sons can be accessed successively.

The sequence of records that should be accessed is as follows. To show the number of accesses, the notation declared previously will be used.

1. PART.ID

$$\text{No. of accesses} \qquad \frac{\frac{NP}{10} + 1}{2}$$

The quantity remaining and its cost is determined. If the quantity in hand is sufficient, the answer is obtained. Otherwise, we go on processing.

2. RECIPE

Since the link is one-to-one,

No. of accesses = 1

3. PRODUCTION.PHASE

Each phase will be scanned

No. of accesses = $PROD_i$

4. MATERIAL.USAGE

No. of accesses = MAT

All materials used in production phase are scanned.

5. PART.ID

No. of accesses = 1

since we branch from the above record. This is to learn
the availability of materials that should be used.

6. R.F.

$$\text{No. of accesses} = \frac{NS \times S_p}{PLT}$$

If the subparts are not available, they should be
either bought or produced. For the latter case, we should
repeat all the first 6 steps as many times as required.

Suppose all the materials are to be bought outside:
All the suppliers producing this part will be scanned for
this purpose.

7. SUPPLIER

No. of accesses: 1

8. MANPOWER.USAGE

No. of accesses = MAN after PRODUCTION.PHASE
All the manpower requirements (time and worker type) are found.

9. MACHINE.USAGE

No. of accesses = MAC

The conditions are the same as above.

10. Q.CONTROL

$$\text{No. of accesses} = \frac{Q}{PROD}$$

11. QC.RESULTS

$$\text{No. of accesses} = \frac{QT}{Q}$$

12. QC.STATISTICS

No. of accesses = 1

At this level, the qualities of the past experiences are known.

13. MONTH.X

No. of accesses = c

This is branched from PART.ID.

14. PRODUCTION.PLAN

$$\text{No. of accesses} = \frac{NPW}{PLT}$$

15. PRODUCTION.REAL

$$\text{No. of accesses} = EN_p$$

Once the PRODUCTION.PLAN record is reached.

16. MODEL.COST

$$\text{No. of accesses} = 1$$

The recent month's cost realization is retrieved.

17. MACHINE.PLAN.REAL

$$\text{No. of accesses} = MAC$$

It is accessed from PRODUCTION.REAL to get the time where the machines are not occupied.

18. PLAN.REAL

$$\text{No. of accesses} = MAN$$

This time, the data to arrange the manpower is retrieved.

After this stage, all the necessary data is ready and a suitable program can perform all the necessary calculations to answer the question. As a result,

$$\text{Total number of accesses} = \frac{\frac{NPP}{10} + 1}{2} + 1$$

$$+ \; PRODP_r \quad 1 \; + \; MAT \; (1 + 1 + \frac{NSP \; x \; SP_p}{PLT} \; (1+1))$$

$$+ \; MAN \quad + \; MAC \quad + \; \frac{Q}{PRODP} \; (\frac{Q}{QT} \; + 1 + 1)$$

$$+ \; c \quad 1 \; + \; \frac{NPWP}{PLTP} \; (1 + ENP_p)(1 + 1 + MAC + MAN)$$

To illustrate this expression, one can use the values of the example in the appendix:

$$\text{Total number of accesses} = 16 + 1 + 25 \quad 1$$
$$+ \; 3(1+1+1)(1+1) \; + \; 2 \; + \; 1 \; + \; 2(1+1+1)$$
$$+ \; 12 \quad 1+1(1 + .25) \; (1 + 1 + 2 + 1)$$
$$= \; 2289 \; accesses$$

Average access time = 35 msecs implies total retrieval time = 80115 msecs = 1 min 20 seconds

XV. CONCLUSION

In this study, the aim was to develop a management information system which is complete in all senses: It establishes objective criteria for organization of firms and explains the ways how a computerized system can be set up in a company.

One can ask the following question: "Is the proposed system applicable to real life companies?". This theoretical work says "Absolutely Yes" and it supports its answer: "Because this work is not isolated from real cases and it gets a lot of the basic knowledge from real life companies. The records are built according to the needs of existing companies.

Although this argument is not false, it can be criticized before observing a real case built up accordingly. However, there are some companies which are more or less managed by an organization similar to the proposed one, but of course there are deviations.

From the point of schema, a test can be performed.
It can be related to some management games and simulated
in this way. As a result of such a study which will take
certainly lots of time, it will be possible to define the
missed points. On the other hand, the ideal way of testing
the proposed system is observing a company which is orga-
nized in this way.

To conclude, managers of a company can get the ne-
cessary information in the shortest possible time and as
accurately as possible if and only if there is a certain
organization that can feed the data to the computer, on
time and accurately. Once departmental organization is
established, each step will imply the other and the con-
flicts between data base administrators and managers will
be expected to solve.

APPENDIX   A

NUMERICAL VALUES USED IN EXAMPLE

EXAMPLE VALUES ASSIGNED TO VARIABLES

Construction/Material	Truck/Material
R: 5	NOP: 2,000
W: 10	NOS: 300
p: 2,500	S_p: 15
P: 25,000	c: 12
S: 1,000	T_p: 1.1
S_p: 30	$PROD_p$: 20
c: 12	T: 52,800
D: 18,000	q: 0.10
I: 18,000	d_p: 15
WS: 20	D: 1500
SUP: 180,000	b: 1.2
dw_i: 150	NOPS: 100
PR: 4,000	SL: Dxb
MATPR: 5	O_p: 0.30
MANPR: 2.5	O: 7,200
MACPR: 1.5	DEL: 1
PJ: 5	TD: 1
BLD: 6	TST: 15
U: 2.5	DEPT: 6
WRK: 70	m_p: 1
a: 1.3	DEM: 24,000
N: 105,000	SR: 1.2
	NPW: 2,000
	PLT: 4,100
	EN_p: 1
	M: 4
	PRC_i: 600
	PRC: 2,400
	MATP: 2
	MANP: 1
	MACP: 1
	SUB_p: 1
	OPT_p: 1
	t_m: 1

Paint/Material

NPP: 300
NSP: 40
SP_p: 10
C : 12
dpp: 6
DP: 300
$NOPPS$: 50
S: 5
SLP: 1,500
OP: 1,800
O_p: 0.50
$DELP$: 5
TDP: 2.5
$TSTP$: 50
$DEPTP$: 3
mpp: 5
$DEMP$: 3,600
$NPWP$: 1,200
SRP: 4
ENP_p: 25
REC: 50
$PLTP$: 1,500
$PRODP_r$: 25
$PRODP$: 1,250
MAT: 2.5
MAN: 1.5
MAC: 1
tpm: 1.8
J: 60
QT_p: 1.8
q : 1
Q : 2,250
IN: 3
n_i: 1
QT : 135,000
k_p: 0.01
WP : 16,875

Marketing/Material

WN: 3
PM: 10,000
SM: 200
SM_p: 200
c : 12
$NEXP$: 50
$NDOM$: 1
k: 3
$REPR$: 50
C: 1
$PPACK$: 100
DM: 3,600
$DELM$: 10,800
$COMP$: 20
CS: 200

Personnel	Machine
P_r: 300	MR: 100
P_c: 30	NR: 10
P_t: 800	XR: 2
P_p: 360	MT: 500
P_m: 180	MP: 30
P_h: 30	MM: 10
NOPER: 2,900	MI: 10
FL: 0.12	NOMACH: 800
SCH: 1.4	PWT: 1.01
REF: 0.12	FR: 2
EXPR: 0.20	QM: 1
PW: 1.2	MNT: 2
CHLD: 2.7	SPR: 4
LVE: 1	F: 1,600
WPD: 1.5	M: 1,600
DEPAT: 130	DSR: 12,800
WTP: 100	SM: 100
EXEMP: 20	NMAV: 130
TR: 6	NFA: 1,000

Money		Money	
IL:	200	BUDAC:	5
IM:	1	BDGL:	180
IS:	1	n:	1
SK:	1	DPTS:	9
NCD:	100	NPW:	18
L:	30	h:	3
K:	5	x:	4
COM:	12	y:	130
SAL:	3	p:	25
JAS:	7		
LED:	30		
JAC:	630		
TRANS:	1,200		
BB:	10		
BR:	15		
BACC:	1		
NCR:	20		
DUR:	2		
CGD:	1.5		
CPD:	1		
NP:	1,800		
NR:	1,200		

LIST OF RECORDS

CONSTRUCTION/MATERIAL

Record Name	Length (Bytes)	Total No. of Records	Example Needs (Bytes)
Warehouse.CR	17	W	170
Part.Id.CR	36	P	900,000
Remainder.CR	63	PXW	1,575,000
R.B.CR	23	SxSp	690,000
Supplier.CR	96	S	19,200
Month.A.Cr	4	CxPxW	1,200,000
Order.Plan.CR	57	D	1,026,000
Order.Real.CR	43	I	774,000
Supply.CR	50	SUP	9,000,000
Production.Data.CR	28	PR	112,000
Material.Data.CR	32	PRxMATPR	640,000
Manpower.Data.CR	23	PRxMANPR	230,000
Machine.Data.CR	24	PRxMACPR	144,000
Region	17	R	85
Project	18	RxPJ	450
Worksite	17	RxWS	1,700
Unit	17	RxWSxBLD	10,300
Detail	17	RxWSxBLDxU	25,000
Work	63+35a	N	11,392,500
Material.Usage	29	NxMATPR	15,225,000
Manpower.Usage	22+11a	NxMANPR	9,528,750
Machine.Usage	29	NxMACPR	4,567,500
Month.B.CR	4	CxRxPJ	1,200

TRUCK/MATERIAL

Record Name	Length (Bytes)	Total No.of Records	Example Needs (Bytes)
Part.List.T	165	PLT	676,500
Supplier.T	96	NOS	28,800
R.C.T.	23	NOSxSp	103,500
Avg.Stock.Month.T	25	CxPLT	1,230,000
R.E.T.	2	CxPLT	98,400
QC.Statistics.T	50	T	2,640,000
Demand.T	44x16b	D	94,800
Sell.T	48	SL	86,400
Order.Plan.T	10+340p	O	145,440
Order.Reql.T	43	OxDEL	309,600
QC.Test.T	22	OxDELxTD	158,400
Test.Data.T	40	TST	600
Month.Z	2	CxPLT	98,400
Supply.Plan.T	12+16mp	DEM	672,000
Supply.Real.T	37	SRxDEM	1,065,600
Production.Plan.T	25	CxNPW	600,000
Production.Real.T	37	$CxNPWxEN_p$	888,000
Model	25	M	100
Process	55	PRC	132,000
Material.Usage	19	MATPxPRC	91,200
Manpower.Usage	29	MANPxPRC	69,600
Machine.Usage	22+22tm	MACPxPRC	110,400
Subparts	19	$NPWxSUB_p$	76,000
Optional.Parts	25	$NPWxOPT_t$	50,000

PAINT/MATERIAL

Record Name	Length (Bytes)	Total No. of Records	Example Needs (Bytes)
Part.List.P	163	PLTP	252,650
Supplier.P	96	NSP	3,840
R.F.P	23	$NSP \times SP_p$	9,200
Avg.Stock.Month.P	25	$C \times PLTP$	465,000
R.H.P	2	$C \times PLTP$	37,200
Demand.P	$44+16s$	DP	37,200
Sell.P	48	SLP	72,000
Order.Plan.P	$10+340p$	OP	48,600
Order.Real.P	43	$OP \times DELP$	387,000
QC.TEST.P	22	$OP \times DELP \times TDP$	495,000
Test.Data.P	40	TSTP	2,000
Supply.Plan.P	$12+16mpp$	DEMP	331,200
Production.Plan.P	25	$C \times NPWP$	360,000
Supply.Real.P	37	$DEMP \times SRP$	532,800
Production.Real.P	37	$C \times NPWP \times DEPTP \times ENP_p$	532,800
Recipe	47	REC	3,700
Production.Phase	64	PRODP	80,000
Material.Usage	19	$MAT \times PRODP$	59,375
Manpower.Usage	29	$MAN \times PRODP$	54,375
Machine.Usage	$24+22tpm$	$MAC \times PRODP$	79,500
Q.Control	40	Q	90,000
QC.Info	$51+19n_i$	$Q \times IN$	473,500
QC.Result	33	QT	4,455,000
QC.Statistics	40	$Q \times C$	1,080,000
W.I.P	82	WP	1,383,750
Month.X	4	$12 \times PLTP$	74,400

MARKETING/MATERIAL

Record Name	Length (Bytes)	Total No. of Records	Example Needs (Bytes)
Warehouse.M	17	WM	51
Part.Id.M	36	PM	360,000
Remainder.M	63	PMxWM	630,000
R.L.M	23	SMxSM$_p$	920,000
Supplier.M	96	SM	19,200
Month.A.M	4	CxPM	480,000
Demand.M	43+16k	DM	372,600
Delivery.M	52	DELM	561,600
Out.Pack	38	PPACK	3,800
In.Pack	70	PPACK	7,000
Custmr.Domestic	96	NDOM	24,000
Order.Customer	42+29k	MDDOMxC	387,000
Month.C	4	NDOMxC	12,000
Domestic.Sells	88	cxkxMDDOM	792,000
Custmr.Export	96	NEXP	4,800
Month.D.M	4	cxNEXP	2,400
Order.Export	42+33k	cxMDEXP	42,300
Export.Real	50	cxkxMDEXP	45,000
Representative	96	REPR	4,800
Competitors	99	COMP	1,980
Month.E	4	cxREPR	2,400
Repr.Real	113	cxCxREPR	67,800
Price.Quot.	23	CSxCOMP	92,000

PERSONNEL

Record Name	Length (Bytes)	Total No. of Records	Example Needs (Bytes)
Personnel List	189+10FL	NOPER	551,580
Education	31	SCHxNOPER	125,860
References	50	REFxNOPER	17,400
Experiences	58	EXPRxNOPER	50,460
Previous.Work	42	PWxNOPER	146,160
Family.Info	22+20xCHLD	NOPER	220,400
Actual.Work	48+12xLVE	NOPER	174,000
Pay.Roll	455+7WPD	NOPERxc	16,199,400
Dept.Statistics	76	DEPATxc	118,560
Month.F	2	c	24
Plan.Real	54	WTPxc	64,800
Exemption	21	EXEMP	420
Tax.Rate	15	TR	90

MACHINE

Record Name	Length (Bytes)	Total No. of Records	Example Needs (Bytes)
Machine.List	164	NOMACH	131,416
Previous.Usage	14	(XR-1)NR	140
Present.Usage	30	MRxWMCHxc	180,000
Month.G	4	NOMACHxc	38,400
Plan	14	cxMRxWMCH	84,000
Mach.Plan.Real	41	cxPRTx(NOMACH-MR)	1,377,600
Failure	75+9QM	F	134,400
Maint.Detail	29+9QM	M	60,800
Maint.Plan	9+52MNT	SPRxNOMACH	361,600
Spare.Parts	101	SPRxNOMACH	323,200
Demand.Supply	64	DSR	819,200
R.N.	23	SMxNMAV	229,000
Supplier.Mach	86	SM	8,600
Order. Ship	59	DSR	755,200
Fixed.Assets	53	NFA	53,000

MONEY

Record Name	Length (Bytes)	Total No. of Records	Example Needs (Bytes)
Import.LIcense	151	IL	30,200
License.Detail	57	ILxIM	11,400
Import.Prep	155	ILxIMxIS	31,000
Import.Real	243	ILxIMxISxSK	48,600
Certf.Deposit	89	NCD	8,900
BS.Total	19	COM	228
BS.Format	55	10xCOM	6,600
BS.Account	53	60xCOM	38,160
PL.Result	19	COM	228
PL.Format	55	5xCOM	3,300
PL.Account	53	30xCOM	19,080
Ledger.Accnt	37	COMxLED	13,320
Subsdr.Accnt	36	COMxSALxLED	38,880
Journal.Accnt	37	COMxJAC	279,720
Month.H	4	COMxcxJAC	362,880
Journal	66	COMxcxTRANS	11,404,800
Banks	65+28BACC	BR	1,395
Credit	108x8DUR	NCR	2,480
Credit.Get	59	CGD	1,770
Credit.Pay	59	CPD	1,180
Payables	60	NP	108,000
Receivables	60	NR	108,000
Bond Detail	101	NBD	121,200
Budget.Date	4	C	48
Budget.Total	52	BUDAC	3,120
Budget.Level	56	BDGL	570,240
Ration	121	cxmxR	7,260
Dept.Date	28+15NPW	cxDPTS	47,412

Record Name	Length (Bytes)	Total No. of Records	Example Needs (Bytes)
Dept.Cost	43+22NPN	CxDPTS	47,412
Month.E	4	C	48
Model.Cost	47	2xcxNPN	20,304
L.C.Export	78	NDEXPxkxc	70,200
Paym.Plan.Domst	17	hxcxkxNDOM	459,000
Shipmt.Detail	286	NDEXPxkxc	257,400
Paym.Plan.Exp.	17	hxcxkxNDEXP	45,900

RECORDS OF CONSOLIDATION AREAS

Record Name	Length (Bytes)	Total No. of Records	Example Needs (Bytes)
Pers.Index	30	NOPER	87,000
Month.M	4	c	48
Total Payables	33	NP	59,400
Total.Recvbls	33	NR	59,400
Bank.Index	30	BB	300
Material.House	45	COM-2	450
Fixed.Assets	45	COM-2	450

APPENDIX B

CODASYL PROGRAM

```
SCHEMA NAME IS CORPORATE

AREA NAME IS HOLDING.CONSLDT
AREA NAME IS HOLDING.
AREA NAME IS CONSTRN.CONSLDT
AREA NAME IS CONSTRN.CENTER
AREA NAME IS CONSTRN.REGION I
AREA NAME IS TRUCK
AREA NAME IS PAINT
AREA NAME IS MARKETING


RECORD NAME IS BS.TOTAL.HC
LOCATION MODE SYSTEM
WITHIN HOLDING.CONSLDT


01 DATE          PIC 9(6)     TYPE IS DATA-BASE-KEY
01 VALUE.TOTAL   PIC 9(11)V99


RECORD NAME IS BS.FORMAT.HC
LOCATION MODE VIA BTBFHC SET
WITHIN HOLDING.CONSLDT

01  LINE.NO          PIC 99
01  ASST.LIABLTY     PIC A
01  TITLE            PIC X (35)
01  UNDERLINE        PIC A
01  COLUMN.NO        PIC 999
01  AMOUNT           PIC 9(11)V99


RECORD NAME IS BS.ACCOUNT.HC
LOCATION MODE DIRECT LINE.NO
WITHIN HOLDING.CONSLDT

01  LINE.NO          PIC 99  TYPE IS DATA-BASE-KEY
01  TITLE            PIC X(35)
01  COLUMN.NO        PIC 999
01  A:OUNT           PIC 9(11)V99


RECORD NAME IS PL.RESULT.HC
LOCATION MODE SYSTEM
WITHIN HOLDING.CONSLDT

01  DATE             PIC 9(6)  TYPE IS DATA-BASE-KEY
01  VALUE.TOTAL      PIC 9(11)V99
```

```
RECORD NAME IS PL.FORMAT.HC
LOCATION MODE VIAPRPFHC SET
WITHIN HOLDING.CONSLDT

01   LINE.NO             PIC 99
01   ASST.LIABLTY        PIC A
01   TITLE               PIC X(35)
01   UNDERLINE           PIC A
01   COLUMN.NO           PIC 999
01 AMOUNT                PIC 9(11)V99


RECORD NAME IS PL.ACCOUNT.HC
LOCATION MODE DIRECT LINE.NO
WITHIN HOLDING.CONSLDT

01   LINE.NO             PIC 99    TYPE IS DATA-BASE-KEY
01   TITLE               PIC X(35)
01   COLUMN.NO           PIC 999
01   AMOUNT              PIC 9(11)V99


RECORD NAME IS BUDGET.DATE.HC
LOCATION MODE SYSTEM
WITHIN HOLDING.CONSLDT

01   YEAR                PIC 99    TYPE IS DATA-BASE-KEY
01   MONTH               PIC 99


RECORD NAME IS BUDGET.TOTAL.HC
LOCATION MODE DIRECT ACCOUNT.NO
WITHIN HOLDING.CONSLDT

01   ACCOUNT.NO          PIC 99    TYPE IS DATA-BASE-KEY
0!   ACCOUNT.NAME        PIC X(20)
01   BUDGET.AMOUNT       PIC 9(11)V99
01   REAL.AMOUNT         PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.IHC
.LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
     DUPLICATES ARE ALLOWED
WITHIN HOLDING.CONSLDT

01   LEVEL.NO            PIC 9999
01   BUDAC TYPE BINARY
01   ACCOUNT OCCURS BUDAC TIMES

     02   ACCOUNT.NO         PIC 9(6)
     02   ACCOUNT.NAME       PIC X(20)
     02   BUDGET.AMOUNT      PIC 9(11)V99
     02   REAL.AMOUNT        PIC 9(11)V99
```

There will certainly be more than
one level, therefore the BUDGET.
LEVEL.I record will be declared as
many times as required, and this
will be the case each time this re-
cord is encountered. Here, only the
first and the last records are as-
sumed to be declared.


```
RECORD NAME IS BUDGET.LEVEL.Z.HC
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
    DUPLICATES ALLOWED
WITHIN HOLDING.CONSLDT

01  LEVEL.NO              PIC 999
01  BUDAC TYPE BINARY
01  ACCOUNT OCCURS BUDAC TIMES

    02  ACCOUNT.NO           PIC 9(6)
    02  ACCOUNT.NAME         PIC X(20)
    02  BUDGET.AMOUNT        PIC 9(11)V99
    02  REAL.AMOUNT          PIC 9(11)V99


RECORD NAME IS MONTH.M.HC
LOCATION MODE SYSTEM
WITHIN HOLDING.CONSLDT

01  YEAR                 PIC 99    TYPE IS DATA-BASE-KEY
01  MONTH                PIC 99


RECORD NAME IS TOTAL.PAYBLS.HC
LOCATION MODE DIRECT PAYABLE.TYPE
WITHIN HOLDING.CONSLDT

01  PAYABLE.TYPE         PIC 9999    TYPE IS DATA-BASE-KEY
01  DATE.DUE             PIC 9(6)
01  AMOUNT               PIC 9(11)V99
01  CREDITOR             PIC X(10)


RECORD NAME IS TOTAL.RECVBLS.HC
LOCATION MODE DIRECT RECEIVABLE.TYPE
WITHIN HOLDING.CONSLDT

01  RECEIVABLE.TYPE      PIC 9999    TYPE IS DATA-BASE-KEY
01  DATE.DUE             PIC 9(6)
01  AMOUNT               PIC 9(11)V99
01  DEBITOR              PIC X(10)
```

```
RECORD NAME IS PERS.INDEX.HC
LOCATION MODE SYSTEM
WITHIN HOLDING.CONSLDT

01   IDENTIF.NO         PIC 9(8)     TYPE IS DATA-BASE-KEY
01   NAME               PIC X(20)
01   WORK.COMPANY       PIC 99


RECORD NAME IS BANK.INDEX.HC
LOCATION MODE SYSTEM
WITHIN HOLDING.CONSLDT

01   BANK.CODE          PIC 9(10)    TYPE IS DATA-BASE-KEY
01   BANK.NAME          PIC X(20)


RECORD NAME IS MATERIAL.HOUSE.HC
LOCATION MODE SYSTEM
WITHIN HOLDING.CONSLDT

01   COMPANY.CODE       PIC 99    TYPE IS DATA-BASE-KEY
01   COMPANY.NAME       PIC X(20)
01   TOTAL.MATL.VALUE   PIC 9(11)V99


RECORD NAME IS FIXED.ASSETS.HC
LOCATION MODE SYSTEM
WITHIN HOLDING.CONSLDT

01   COMPANY.CODE       PIC 99    TYPE IS DATA-BASE-KEY
01   COMPANY.NAME       PIC X(20)
01   FIXED.ASSET.VALUE  PIC 9(11)V99


RECORD NAME IS BS.TOTAL.CC
LOCATION MODE SYSTEM
WITHIN CONSTRN.CONSLDT

01   DATE               PIC 9(6)     TYPE IS DATA-BASE-KEY
01   VALUE.TOTAL        PIC 9(11)V99


RECORD NAME IS BS.FORMAT.CC
LOCATION MODE VIA BTBDCC SET
WITHIN CONSTRN.CONSLDT

01   LINE.NO            PIC 99
01   ASST.LIABLTY       PIC A
01   TITLE              PIC X(35)
01   UNDERLINE          PIC A
01   COLUMN.NO          PIC 999
01   AMOUNT             PIC 9(11)V99
```

```
RECORD NAME IS BS.ACCOUNT.CC
LOCATION MODE DIRECT LINE.NO
WITHIN CONSTRN.CONSLDT

01   LINE.NO           PIC 99    TYPE IS DATA-BASE-KEY
01   TITLE             PIC X(35)
01   COLUMN.NO         PIC 999
01   AMOUNT            PIC 9(11)V99


RECORD NAME IS PL.RESULT.CC
LOCATION MODE SYSTEM
WITHIN CONSTRN.CONSLDT

01   DATE              PIC 9(6)   TYPE IS DATA-BASE-KEY
01   VALUE.TOTAL       PIC 9(11)V99


RECORD NAME IS PL.FORMAT.CC
LOCATION MODE VIA PRPFCC SET
WITHIN CONSTRN.CONSLDT

01   LINE.NO           PIC 99
01   ASST.LIABLTY      PIC A
01   TITLE             PIC X(35)
01   UNDERLINE         PIC A
01   COLUMN.NO         PIC 999
01   AMOUNT            PIC 9(11)V99


RECORD NAME IS PL.ACCOUNT.CC
LOCATION MODE DIRECT LINE.NO
WITHIN CONSTRN.CONSLDT

01   LINE.NO           PIC 99    TYPE IS DATA-BASE-KEY
01   TITLE             PIC X(35)
01   COLUMN.NO         PIC 999
01   AMOUNT            PIC 9(11)V99


RECORD NAME IS BUDGET.DATE.CC
LOCATION MODE SYSTEM
WITHIN CONSTRN.CONSLDT

01   YEAR              PIC 99    TYPE IS DATA-BASE-KEY
01   MONTH             PIC 99
```

```
RECORD NAME IS BUDGET.TOTAL.CC
LOCATION MODE DIRECT ACCOUNT.NO
WITHIN CONSTRN.CONSLDT

01   ACCOUNT.NO        PIC 9(6)     TYPE IS DATA-BASE-KEY
01   ACCOUNT.NAME      PIC X(20)
01   BUDGET.AMOUNT     PIC 9(11)V99
01   REAL.AMOUNT       PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.I.CC
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
     DUPLICATES ARE ALLOWED
WITHIN CONSTRN.CONSLDT

01   LEVEL.NO          PIC 9999
01   BUDAC TYPE BINARY
01   ACCOUNT OCCURS BUDAC TIMES

     02   ACCOUNT.NO        PIC 9(6)
     02   ACCOUNT.NAME      PIC X(20)
     02   BUDGET.AMOUNT     PIC 9(11)V99
     02   REAL.AMOUNT       PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.Z.CC
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
     DUPLICATES ARE ALLOWED
WITHIN CONSTRN.CONSLDT

01   LEVEL.NO          PIC 999
01   BUDAC TYPE BINARY
01   ACCOUNT OCCURS BUDAC TIMES

     02   ACCOUNT.NO        PIC 9(6)
     02   ACCOUNT.NAME      PIC X(20)
     02   BUDGET.AMOUNT     PIC 9(11)V99
     02   REAL.AMOUNT       PIC 9(11)V99


RECORD NAME IS MONTH.M.CC
LOCATION MODE SYSTEM
WITHIN CONSTRN.CONSLDT

01   YEAR              PIC 99
01   MONTH             PIC 99


RECORD NAME IS TOTAL.PAYBLS.CC
LOCATION MODE DIRECT PAYABLE.TYPE
WITHIN CONSTRN.CONSLDT

01   PAYABLE.TYPE      PIC 9999     TYPE IS DATA-BASE-KEY
01   DATE.DUE          PIC 9(6)
01   AMOUNT            PIC 9(11)V99
01   CREDITOR          PIC X(10)
```

```
RECORD NAME IS TOTAL.RECVBLS.CC
LOCATION MODE DIRECT RECEIVABLE.TYPE
WITHIN CONSTRN.CONSLDT

01   RECEIVABLE.TYPE    PIC 9999    TYPE IS DATA-BASE-KEY
01   DATE.DUE           PIC 9(6)
01   AMOUNT             PIC 9(11)V99
01   DEBITOR            PIC X(10)


RECORD NAME IS PERS.INDEX.CC
LOCATION MODE SYSTEM
WITHIN CONSTRN.CONSLDT

01   IDENTIF.NO         PIC 9(8)    TYPE IS DATA-BASE-KEY
01   NAME               PIC X(20)
01   WORK.COMPANY       PIC 99


RECORD NAME IS BANK.INDEX.CC
LOCATION MODE SYSTEM
WITHIN CONSTRN.CONSLDT

01   BANK.CODE          PIC 9(10)    TYPE IS DATA-BASE-KEY
01   BANK.NAME          PIC X(20)


RECORD NAME IS MATERIAL.HOUSE.CC
LOCATION MODE SYSTEM
WITHIN CONSTRN.CONSLDT

01   REGION.CODE        PIC 99
     TYPE IS DATA-BASE-KEY
01   REGION.NAME        PIC X(20)
01   TOTAL.MATL.VALUE   PIC 9(11)V99


RECORD NAME IS FIXED.ASSETS.CC
LOCATION MODE SYSTEM
WITHIN CONSTRN.CONSLDT

01   REGION.CODE        PIC 99
     TYPE IS DATA-BASE-KEY
01   REGION.NAME        PIC X(20)
01   FIXED.ASSET.VALUE  PIC 9(11)V99


RECORD NAME IS BS.TOTAL.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01   DATE               PIC 9(6)    TYPE IS DATA-BASE-KEY
01   BALUE.TOTAL        PIC 9(11)V99
```

```
RECORD NAME IS BS.FORMAT.H
LOCATION MODE VIA BTBFH SET
WITHIN HOLDING

01   LINE.NO              PIC 99
01   ASST.LIABLTY         PIC A
01   TITLE                PIC X(35)
01   UNDERLINE            PIC A
01   COLUMN.NO            PIC 999
01   AMOUNT               PIC 9(11)V99


RECORD NAME IS BS.ACCOUNT.H
LOCATION MODE DIRECT LINE.NO
WITHIN HOLDING

01   LINE                 PIC 99    TYPE IS DATA-BASE-KEY
01   TITLE                PIC X(35)
01   COLUMN.NO            PIC 999
01   AMOUNT               PIC 9(11)V99


RECORD NAME IS OL.RESULT.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01   DATE                 PIC 9(6)    TYPE IS DATA-BASE-KEY
01   VALUE.TOTAL          PIC 9(11)V99


RECORD NAME IS PL.FORMAT.H
LOCATION MODE VIA PRPFH SET
WITHIN HOLDING

01   LINE.NO              PIC 99
01   ASST.LIABLTY         PIC A
01   TITLE                PIC X(35)
01   UNDERLINE            PIC A
01   COLUMN.NO            PIC 999
01   AMOUNT               PIC 9(11)V99


RECORD NAME IS PL.ACCOUNT.H
LOCATION MODE DIRECT LINE.NO
WITHIN HOLDING

01   LINE.NO              PIC 99    TYPE IS DATA-BASE-KEY
01   TITLE                PIC X(35)
01   COLUMN.NO            PIC 999
01   AMOUNT               PIC 9(11)V99
```

```
RECORD NAME IS BUDGET.DATA.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01  YEAR                 PIC 99    TYPE IS DATA-BASE-KEY
01  MONTH                PIC 99


RECORD NAME IS BUDGET.TOTAL.H
LOCATION MODE DIRECT ACCOUNT.NO
WITHIN HOLDING

01  ACCOUNT.NO           PIC 9(6)    TYPE IS DATA-BASE-KEY
01  ACCOUNT.NAME         PIC X(20)
01  BUDGET.AMOUNT        PIC 9(11)V99
01  REAL.AMOUNT          PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.I.H
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
    DUPLICATES ARE ALLOWED
WITHIN HOLDING

01  LEVEL.NO             PIC 9999
01  BUDAC TYPE BINARY
01  ACCOUNT OCCURS BUDAC TIMES

    02  ACCOUNT.NO               PIC 9(6)
    02  ACCOUNT.NAME             PIC X(20)
    02  BUDGET.AMOUNT            PIC 9(11)V99
    02  REAL.AMOUNT              PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.Z.H
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
    DUPLICATES ARE ALLOWED
WITHIN HOLDING

01  LEVEL.NO             PIC 9999
01  BUDAC TYPE BINARY
01  ACCOUNT OCCURS BUDAC TIMES

    02  ACCOUNT.NO               PIC 9(6)
    02  ACCOUNT.NAME             PIC X(20)
    02  BUDGET.AMOUNT            PIC 9(11)V99
    02  REAL.AMOUNT              PIC 9(11)V99


RECORD NAME IS LEDGER.ACCNT.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01  ACCOUNT.NO           PIC 999    TYPE IS DATA-BASE-KEY
01  ACCOUNT.NAME         PIC X(20)
01  DRCR                 PIC A
01  REMAINDER            PIC 9(11)V99
```

```
RECORD NAME IS SUBSDR.ACCNT.H
LOCATION MODE CALC PROC-ACH USING ACCOUNT.NO
     DUPLICATES ARE NOT ALLOWED
WITHIN HOLDING

01   ACCOUNT.NO          PIC 99
01   ACCOUNT.NAME        PIC X(20)
01   DRCR                PIC A
01   REMAINDER           PIC 9(11)V99


RECORD NAME IS JOURNAL.ACCNT.H
LOCATION MODE CALC PROC-ACH USING ACCOUNT.NO
     DUPLICATES ARE NOT ALLOWED
WITHIN HOLDING

01   ACCOUNT.NO          PIC 999
01   ACCOUNT.NAME        PIC X(20)
01   DRCR                PIC A
01   REMAINDER           PIC 9(11)V99


RECORD NAME IS MONTH.H.H
LOCATION MODE CALC PROC-ACH USING YEAR
     DUPLICATES ARE NOT ALLOWED
WITHIN HOLDING

01   YEAR                PIC 99
01   MONTH               PIC 99


RECORD NAME IS JOURNAL.H
LOCATION MODE CALC PROC-ACH USING DATE
     DUPLICATES ARE ALLOWED
WITHIN HOLDING

01   DATE                PIC 9(6)
01   TRANSACT.NO         PIC 9(6)
01   DRCR                PIC A
01   AMOUNT              PIC 9(11)V99
01   EXPLANATION         PIC X(40)


RECORD NAME IS BANKS.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01   BANK.CODE           PIC 9(10)      TYPE IS DATA-BASE-KEY
01   BANK.NAME           PIC X(20)
01   BRANCH.NAME         PIC X(20)
01   BANK.ACCNT.NO       PIC 9(15)
01   BACC TYPE BINARY
01   ACCNT OCCURS BACC TIMES
```

```
    02   ACCOUNT.TYPE                 PIC 9(15)
    02   REMAINDER                    PIC 9(11)V99


RECORD NAME IS CREDIT.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01   CERTIFCT.NO        PIC 9(15)    TYPE IS DATA-BASE-KEY
01   RECEIV.DATE        PIC 9(6)
01   CREDIT.TYPE        PIC X(8)
01   EXPLANATION        PIC X(40)
01   LIMIT.VALU         PIC 9(11)V99
01   VALIDITY           PIC 9(6)
01   CURRENCY.TYPE      PIC X(5)
01   REF.NO             PIC 9(15)
01   DUR TYPE BINARY
01   INTEREST OCCURS DUR TIMES

    02   INTEREST.RATE          PIC 99
    02   INTRST.RATE.DATE       PIC 9(6)


RECORD NAME IS CREDIT.GET.H
LOCATION MODE DIRECT DATE
WITHIN HOLDING

01   DATE               PIC 9(6)     TYPE IS DATA-BASE-KEY
01   AMOUNT             PIC 9(11)V99
01   EXPLANATION        PIC X(40)


RECORD NAME IS CREDIT.PAY.H
LOCATION MODE DIRECT DATE
WITHIN HOLDING

01   DATE               PIC 9(6)     TYPE IS DATA-BASE-KEY
01   AMOUNT             PIC 9(11)V99
01   EXPLANATION        PIC X(40)


RECORD NAME IS PAYABLES.H
LOCATION MODE DIRECT TYPE.PAYABLE
WITHIN HOLDING

01   TYPE.PAYABLE       PIC 9999     TYPE IS DATA-BASE-KEY
01   CREDITOR           PIC X(10)
01   AMOUNT             PIC 9(11)V99
01   DATE.PLAN          PIC 9(6)
01   DATE.DUE           PIC 9(6)
01   DATE.REAL          PIC 9(6)
01   REFERENCE          PIC X(15)
```

```
RECORD NAME IS RECEIVABLES.H
LOCATION MODE DIRECT TYPE.RECEIV
WITHIN HOLDING

01  TYPE.RECEIV        PIC 9999    TYPE IS DATA-BASE-KEY
01  DEBTOR             PIC X(10)
01  AMOUNT             PIC 9(11)V99
01  DATE.PLAN          PIC 9(6)
01  DATE.DUE           PIC 9(6)
01  DATE.REAL          PIC 9(6)
01  REFERENCE          PIC X(15)


RECORD NAME IS BOND.DETAIL.H
LOCATION MODE CALC PROC-BDH USING ENDORESE.DATE,RECEIV.DATE
      DUPLICATIONS ARE NOT ALLOWED
WITHIN HOLDING

01  RECEIV.DATE        PIC 9(6)
01  DEBITOR            PIC X(10)
01  ENDORS.FROM        PIC X(10)
01  ENDORS.TO          PIC X(10)
01  ENDORSE.DATE       PIC 9(6)
01  ROLL.NO            PIC X(12)
01  DEBIT PLACE        PIC 9(15)
01  ENDORSE.REF        PIC 9(15)
01  BANK.REF.NO        PIC 9(15)
01  USAGE.TYPE         PIC X(2)


RECORD NAME IS CERTF.DEPOSIT.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01  BANK.CODE          PIC 9(10)   TYPE IS DATA-BASE-KEY
01  VALUE              PIC 9(11)V99
01  CURRENCY TYPE      PIC X(5)
01  VALIDITY           PIC 9(6)
01  BEGIN.DATE         PIC 9(6)
01  CERTF.NO           PIC 9(15)
01  FIRM.GIVEN         PIC X(20)
01  GIVE.DATE          PIC 9(6)
01  BACK.DATE          PIC 9(6)
01  INTEREST.RATE      PIC 9(2)
```

```
RECORD NAME IS PERSONNEL.LIST.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01   ID.NO              PIC 9(8)    TYPE IS DATA-BASE-KEY
01   NAME               PIC X(20)
01   ADDRESS            PIC X(20)
01   BIRTH.DATE         PIC 9(6)
01   SEX                PIC A
01   ENTER.DATE         PIC 9(6)
01   INSURANCE.NO       PIC 9(9)
01   TAX.NO             PIC 9(9)
01   NATIONALITY        PIC 9(2)
01   INFIRM.CLASS       PIC 9
01   FL TYPE BINARY
01   FOR.LANG OCCURS FL TIMES

     02   FOREIGN.LANG            PIC X(10)

01   FATHER.NAME        PIC X(10)
01   MOTH.NAME          PIC X(10)
01   BIRTH.PLACE        PIC X(10)
01   RELIGION           PIC X(10)
01   ID.CARD

     02   PROVINCE               PIC X(10)
     02   TOWN                   PIC X(10)
     02   DISTRICT               PIC X(10)
     02   QUARTER                PIC X(10)
     02   HOUSE                  PIC X(5)
     02   BINDING                PIC 9(6)
     02   PAGE                   PIC 9(6)
     02   CARD.NO                PIC 9(9)


RECORD NAME IS EDUCATION.H
LOCATION MODE VIA PERSEDH SET
WITHIN HOLDING

01   SCHOOL.NAME        PIC X(10)
01   GRADTN.DATE        PIC 9(6)
01   DIPLOME.NO         PIC 9(5)
01   FIELD              PIC X(10)


RECORD NAME IS REFERENCES.H
LOCATION MODE VIA PERSREFH SET
WITHIN HOLDING

01   NAME               PIC X(20)
01   ADDRESS            PIC X(20)
01   POSITION           PIC X(10)
```

```
RECORD NAME IS EXPERIENCE.H
LOCATION MODE VIA PERSEXH SET
WITHIN HOLDING

01  COMPANY.NAME      PIC X(15)
01  COMPANY.ADDRESS   PIC X(20)
01  POSITION          PIC X(10)
01  LAST.SALARY       PIC 9(11)V99


RECORD NAME IS PREVIOUS.WORK.H
LOCATION MODE VIA PERSPWH SET
WTIHIN HOLDING

01  DEPT.CODE         PIC 99
01  BEGIN.DATE        PIC 9(6)
01  END.DATE          PIC 9(6)
01  POSITION          PIC X(10)
01  SALARY            PIC 9(11)V99
01  GRADES            PIC 9(5)


RECORD NAME IS FAMILY.INFO.H
LOCATION MODE VIA PERSFIH SET
WITHIN HOLDING

01  MARTIAL.STATUS    PIC AA
01  SPOUSE.NAME       PIC X(10)
01  SPOUSE.WORK       PIC X(10)
01  CHLD TYPE BINARY
01  CHILD OCCURS CHLD TIMES

    02  CHILD.NAME              PIC X(10)
    02  CH.BIRTH.DATE           PIC 9(6)
    02  EDUCATION               PIC 99
    02  MARTIAL.STAT.           PIC 99


RECORD NAME IS ACTUAL.WORK.H
LOCATION MODE VIA PERSAWH SET
WITHIN HOLDING

01  DEPT.CODE         PIC 99
01  ENTER.DATE        PIC 9(6)
01  POSITION          PIC X(10)
01  SALARY            PIC 9(11)V99
01  GRADE             PIC 9(5)
01  NEXT.LEAVE.DATE   PIC 9(6)
01  NEXT.LEAVE.DATE   PIC 9(6)
01  LVE TYPE BINARY
01  LEAVE OCCURS LVE TIMES

    02  PAST.LEAVE.DATE         PIC 9(6)
    02  PAST.RETRN.DATE         PIC 9(6)
```

```
RECORD NAME IS PAYROLL.H
LOCATION MODE VIA PERSPRH
WITHIN HOLDING

01   MONTH                PIC 99
01   YEAR                 PIC 99
01   WORK.DAT.TOTAL       PIC 99
01   ANNUAL.LEAVE.TIME    PIC 999
01   COMPLEG.TIME         PIC 999
01   WEEKLY.LEAVE.TIME    PIC 9(5)
01   OTHER.LEAVE.TIME     PIC 9(5)
01   HOLIDAY OVERTIME     PIC 9(5)
01   NORMAL.OVERTIME      PIC 9(5)
01   OVERTIME.PAYMENT     PIC 9(11)V99
01   UNDERTIME.DECREASE   PIC 9(11)V99
01   PREMIUM              PIC 9(11)V99
01   BONUS                PIC 9(11)V99
01   CHLD.PAYMNT          PIC 9(11)V99
01   SENIOR.INDEMN        PIC 9(11)V99
01   EDUCATION.PAYM       PIC 9(11)V99
01   COMBUST.PAYM         PIC 9(11)V99
01   MILITARY.PAYM        PIC 9(11)V99
01   TRAVEL.EXP           PIC 9(11)V99
01   ENCOURAGE.PAYM       PIC 9(11)V99
01   INCREASE.PREPAYM     PIC 9(11)V99
01   PREPAYMENT           PIC 9(11)V99
01   SPECIAL.DISCOUNT     PIC 9(11)V99
01   GENERAL.DISCOUNT     PIC 9(11)V99
01   EMIGRANT.DISCOUNT    PIC 9(11)V99
01   INFIRM.DISCOUNT      PIC 9(11)V99
01   CHILD.DISCOUNT       PIC 9(11)V99
01   EDUCATION.DISCOUNT   PIC 9(11)V99
01   NO.INSURANCE.DAY     PIC 99
01   TAX.CLASS            PIC 99
01   GROSS.INSUR.AMOUNT   PIC 9(11)V99
01   GROSS.TAX.AMOUNT     PIC 9(11)V99
01   INSURANCE.PREMIUM    PIC 9(11)V99
01   INCOME.TAX           PIC 9(11)V99
01   DEDUCTION OCCURS 8 TI:ES

     02  DEDUC.TYPE                   PIC 9(11)V99

01   ROUND.OFF.FACTOR     PIC 999
01   NET.AMOUNT           PIC 9(11)V99
```

```
RECORD NAME IS DEPT.STATISTICS.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01   DEPT.CODE          PIC 99    TYPE IS DATA-BASE-KEY
01   DEPT.NAME      .   PIC X(20)
01   NO.EMPLOYEE        PIC 9(5)
01   NO.DIRECT.WORKER   PIC 9(5)
01   NO.INDRCT.WORKER   PIC 9(5)
01   EMPLOYEE.PAYMNTS   PIC 9(11)V99
01   DIRECT.WORK.PAYMNT PIC 9(11)V99
01   INDRCT.WORK.PAYMNT PIC 9(11)V99


RECORD NAME IS EXEMPTION.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01   EXEMPT.TYPE        PIC 99    TYPE IS DATA-BASE-KEY
01   AMOUNT             PIC 9(11)V99
01   INSUR.EXEMP.RATE   PIC 999
01   TAX.EXEMP.RATE     PIC 999


RECORD NAME IS TAX.RATE.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01   UPPER.LIMIT        PIC 9(11)V99   TYPE IS DATA-BASE-KEY
01   TAX.PERCENTAGE     PIC 99


RECORD NAME IS FIXED.ASSETS.H
LOCATION MODE SYSTEM
WITHIN HOLDING

01   CODE               PIC 9(9)    TYPE IS DATA-BASE-KEY
01   NAME               PIC X(20)
01   PURCHASE.DATE      PIC 9(6)
01   INITIAL.PRICE      PIC 9(11)V99
01   DEPR.RATE          PIC 999
01   DEPT.USING         PIC 99


RECORD NAME IS BS.TOTAL.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01   DATE               PIC 9(6)    TYPE IS DATA-BASE-KEY
01   VALUE.TOTAL        PIC 9(11)V99
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RECORD NAME IS BS.FORMAT.C
LOCATION MODE VIA BRBFC SET
WITHIN CONSTRN.CENTER

01  LINE.NO              PIC 99
01  ASST.LIABLTY         PIC A
01  TITLE                PIC X(35)
01  UNDERLINE            PIC A
01  COLUMN.NO            PIC 999
01  AMOUNT               PIC 9(11)V99


RECORD NAME IS BS.ACCOUNT.C
LOCATION MODE DIRECT LINE.NO
WITHIN CONSTRN.CENTER

01  LINE                 PIC 99    TYPE IS DATA-BASE-KEY
01  TITLE                PIC X(35)
01  COLUMN.NO            PIC 999
01  AMOUNT               PIC 9(11)V99


RECORD NAME IS PL.RESULT.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01  DATE                 PIC 9(6)    TYPE IS DATA-BASE-KEY
01  VALUE.TOTAL          PIC 9(11)V99


RECORD NAME IS PL.FORMAT.C
LOCATION MODE VIA PRPFC SET
WITHIN CONSTRN.CENTER

01  LINE.NO              PIC 99
01  ASST.LIABLTY         PIC A
01  TITLE                PIC X(35)
01  UNDERLINE            PIC A
01  COLUMN.NO            PIC 999
01  AMOUNT               PIC 9(11)V99


RECORD NAME IS PL.ACCOUNT.C
LOCATION MODE DIRECT LINE.NO
WITHIN CONSTRN.CENTER

01  LINE.NO              PIC 99    TYPE IS DATA-BASE-KEY
01  TITLE                PIC X(35)
01  COLUMN.NO            PIC 999
01  AMOUNT               PIC 9(11)V99
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RECORD NAME IS BUDGET.DATE.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01  YEAR              PIC 99    TYPE IS DATA-BASE-KEY
01  MONTH             PIC 99


RECORD NAME IS BUDGET.TOTAL.C
LOCATION MODE DIRECT ACCOUNT.NO
WITHIN CONSTRN.CENTER

01  ACCOUNT.NO        PIC 9(6)    TYPE IS DATA-BASE-KEY
01  ACCOUNT.NAME      PIC X(20)
01  BUDGET.AMOUNT     PIC 9(11)V99
01  REAL.AMOUNT       PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.I.C
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
    DUPLICATES ARE ALLOWED
WITHIN CONSTRN.CENTER

01  LEVEL.NO          PIC 9999
01  BUDAC TYPE BINARY
01  ACCOUNT OCCURS BUDAC TIMES

    02  ACCOUNT.NO        PIC 9(6)
    02  ACCOUNT.NAME      PIC X(20)
    02  BUDGET.AMOUNT     PIC 9(11)V99
    02  REAL.AMOUNT       PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.Z.C
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
    DUPLICATES ARE ALLOWED
WITHIN CONSTRN.CENTER

01  LEVEL.NO          PIC 9999
01  BUDAC TYPE BINARY
01  ACCOUNT OCCURS BUDAC TIMES

    02  ACCOUNT.NO        PIC 9(6)
    02  ACCOUNT.NAME      PIC X(20)
    02  BUDGET.AMOUNT     PIC 9(11)V99
    02  REAL.AMOUNT       PIC 9(11)V99


RECORD NAME IS LEDGER.ACCNT.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01  ACCOUNT.NO        PIC 999    TYPE IS DATA-BASE-KEY
01  ACCOUNT.NAME      PIC X(20)
01  DRCR              PIC A
01  REMAINDER         PIC 9(11)V99
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RECORD NAME IS SUBSDR.ACCNT.C
LOCATION MODE CALC PROC-ACC USING ACCOUNT.NO
    DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.CENTER

01  ACCOUNT.NO        PIC 99
01  ACCOUNT.NAME      PIC X(20)
01  DRCR              PIC A
01  REMAINDER         PIC 9(11)V99


RECORD NAME IS JOURNAL.ACCNT.C
LOCATION MODE CALC PROC-ACC USING ACCOUNT.NO
    DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.CENTER

01  ACCOUNT.NO        PIC 999
01  ACCOUNT.NAME      PIC X(20)
01  DRCR              PIC A
01  REMAINDER         PIC 9(11)V99


RECORD NAME IS MONTH.H.C.
LOCATION MODE CALC PROC-ACC USING YEAR
    DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.CENTER

01  YEAR              PIC 99
01  MONTH             PIC 99


RECORD NAME IS JOURNAL.C
LOCATION MODE CALC PROC-ACC USING DATE
    DUPLICATES ARE ALLOWED
WITHIN CONSTRN.CENTER

01  DATE              PIC 9(6)
01  TRANSACT.NO       PIC 9(6)
01  DRCR              PIC A
01  AMOUNT            PIC 9(11)V99
01  EXPLANATION       PIC X(40)


RECORD NAME IS BANKS.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01  BANK.CODE         PIC 9(10)     TYPE IS DATA-BASE-KEY
01  BANK.NAME         PIC X(20)
01  BRANCH.NAME       PIC X(20)
01  BANK.ACCNT.NO     PIC 9(15)
01  BACC TYPE BINARY
01  ACCNT OCCURS BACC TIMES
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     02   ACCOUNT.TYPE              PIC 9(15)
     02   REMAINDER                 PIC 9(11)V99


RECORD NAME IS CREDIT.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01   CERTIFCT.NO        PIC 9(15)    TYPE IS DATA-BASE-KEY
01   RECEIV.DATE        PIC 9(6)
01   CREDIT.TYPE        PIC X(8)
01   EXPLANATION        PIC X(40)
01   LIMIT.VALUE        PIC 9(11)V99
01   VALIDITY           PIC 9(6)
01   CURRENCY.TYPE      PIC x(5)
01   REF.NO             PIC 9(15)
01   DUR TYPE BINARY
01   INTEREST OCCURS DUR TIMES

     02   INTEREST.RATE             PIC 99
     02   INTRST.RATE.DATE          PIC 9(6)


RECORD NAME IS CREDIT.GET.C
LOCATION MODE DIRECT DATE
WITHIN CONSTRN.CENTER

01   DATE               PIC 9(6)     TYPE IS DATA-BASE-KEY
01   AMOUNT             PIC 9(11)V99
01   EXPLANATION        PIC X(40)


RECORD NAME IS CREDIT.PAY.C
LOCATION MODE DIRECT DATE
WITHIN CONSTRN.CENTER

01   DATE               PIC 9(6)     TYPE IS DATA-BASE-KEY
01   AMOUNT             PIC 9(11)V99
01   EXPLANATION        PIC X(40)


RECORD NAME IS PAYABLES.C
LOCATION MODE DIRECT TYPE.PAYABLE
WITHIN CONSTRN.CENTER

01   TYPE.PAYABLE       PIC 9999     TYPE IS DATA-BASE-KEY
01   CREDITOR           PIC X(10)
01   AMOUNT             PIC 9(11)V99
01   DATE.PLAN          PIC 9(6)
01   DATE.DUE           PIC 9(6)
01   DATE.REAL          PIC 9(6)
01   REFERENCE          PIC X(15)
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RECORD NAME IS RECEIVABLES.C
LOCATION MODE DIRECT TYPE.RECEIV
WITHIN CONSTRN.CENTER

01   TYPE.RECEIV        PIC 9999     TYPE IS DATA-BASE-KEY
01   DEBITOR            PIC X(10)
01   AMOUNT             PIC 9(11)V99
01   DATE.PLAN          PIC 9(6)
01   DATE.DUE           PIC 9(6)
01   DATE.REAL          PIC 9(6)
01   REFERENCE          PIC X(15)


RECORD NAME IS BOND.DETAIL.C
LOCATION MODE CALC PROC-BDC USING ENDORSE.DATE,RECEIV.DATE
     DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.CENTER

01   RECEIV.DATE        PIC 9(6)
01   DEBITOR            PIC X(10)
01   ENDORS.FROM        PIC X(10)
01   ENDORS.TO          PIC X(10)
01   ENDORSE.DATE       PIC 9(6)
01   ROLL.NO            PIC 9(15)
01   DEBIT.PLACE        PIC X(12)
01   ENDORSE.REF        PIC 9(15)
01   BANK.REF.NO        PIC 9(15)
01   USAGE.TYPE         PIC X(2)


RECORD NAME IS CERTF.DEPOSIT.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01   BANK.CODE          PIC 9(10)    TYPE IS DATA-BASE-KEY
01   VALUE              PIC 9(11)V99
01   CURRENCY.TYPE      PIC X(5)
01   VALIDITY           PIC 9(6)
01   BEGIN.DATE         PIC 9(6)
01   CERTF.NO           PIC 9(15)
01   FIRM.GIVEN         PIC X(20)
01   GIVE.DATE          PIC 9(6)
01   BACK.DATE          PIC 9(6)
01   INTEREST.RATE      PIC 9(2)
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RECORD NAME IS PERSONNEL.LIST.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01   ID.NO                PIC 9(8)     TYPE IS DATA-BASE-KEY
01   NAME                 PIC X(20)
01   ADDRESS              PIC X(20)
01   BIRTH.PLACE          PIC 9(6)
01   SEX                  PIC A
01   ENTER.DATE           PIC 9(6)
01   INSURANCE.NO         PIC 9(9)
01   TAX.NO               PIC 9(9)
01   NATIONALITY          PIC 9(2)
01   INFIRM.CLASS         PIC 9
01   FL TYPE BINARY
01   FOR.LANG OCCURS FL TIMES

     02   FOREIGN.LANG             PIC X(10)

01   FATHER.NAME          PIC X(10)
01   MOTHER.NAME          PIC X(10)
01   BIRTH.PLACE          PIC X(10)
01   RELIGION             PIC X(10)
01   ID.CARD

     02   PROVINCE                 PIC X(10)
     02   TOWN                     PIC X(10)
     02   DISTRICT                 PIC X(10)
     02   QUARTER                  PIC X(10)
     02   HOUSE                    PIC X(6)
     02   BINDING                  PIC 9(6)
     02   PAGE                     PIC 9(6)
     02   CARD.NO                  PIC 9(9)


RECORD NAME IS EDUCATION.C
LOCATION MODE VIA PERSEDC SET
WITHIN CONSTRN.CENTER

01   SCHOOL.NAME          PIC X(10)
01   GRADTN.DATE          PIC 9(6)
01   DIPLOME.NO           PIC 9(5)
01   FIELD                PIC X(10)


RECORD NAME IS REFERENCES.C
LOCATION MODE VIA PERSREFC SET
WITHIN CONSTRN.CENTER

01   NAME                 PIC X(20)
01   ADDRESS              PIC X(20)
01   POSITION             PIC X(10)
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RECORD NAME IS EXPERIENCE.C
LOCATION MODE VIA PERSEXC SET
WITHIN CONSTRN.CENTER

01   COMPANY.NAME        PIC X(15)
01   COMPANY.ADDRESS     PIC X(20)
01   POSITION            PIC X(10)
01   LAST.SALARY         PIC 9(11)V99


RECORD NAME IS PREVIOUS.WORK.C
LOCATION MODE VIA PERSPWC SET
WITHIN CONSTRN.CENTER

01   DEPT.CODE           PIC 99
01   BEGIN.DATE          PIC 9(6)
01   END.DATE            PIC 9(6)
01   POSITION            PIC X(10)
01   SALARY              PIC 9(11)V99
01   GRADES              PIC 9(5)


RECORD NAME IS FAMILY.INFO.C
LOCATION MODE VIA PERSFIC SET
WITHIN CONSTRN.CENTER

01   MARTIAL.STATUS      PIC AA
01   SPOUSE.NAME         PIC X(10)
01   SPOUSE.WORK         PIC X(10)
01   CHLD TYPE BINARY
01   CHILD OCCURS CHLD TIMES

     02   CHILD.NAME                 PIC X(10)
     02   CH.BIRTH.DATE              PIC 9(6)
     02   EDUCATION                  PIC 99
     02   MARTIAL.STAT.              PIC 99


RECORD NAME IS ACTUAL.WORK.C
LOCATION MODE VIA PERSAWC SET
WITHIN CONSTRN.CENTER

01   DEPT.CODE           PIC 99
01   ENTER.DATE          PIC 9(6)
01   POSITION            PIC X(10)
01   SALARY              PIC 9(11)V99
01   GRADE               PIC 9(5)
01   NEXT.LEAVE.DATE     PIC 9(6)
01   NEXT.LEAVE.DATE     PIC 9(6)
01   LVE TYPE BINARY
01   LEAVE OCCURS LVE TIMES

     02   PAST.LEAVE.DATE            PIC 9(6)
     02   PAST.RETRN.DATE            PIC 9(6)
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RECORD NAME IS PAY.ROLL.C
LOCATION MODE VIA PERSPRC
WITHIN CONSTRN.CENTER

01  MONTH               PIC 99
01  YEAR                PIC 99
01  WORK.DAY.TOTAL      PIC 99
01  ANNUAL.LEAVE.TIME   PIC 999
01  COMPELG.TIME        PIC 999
01  WEEKLY.LEAVE.TIME   PIC 9(5)
01  OTHER.LEAVE.TIME    PIC 9(5)
01  HOLIDAY.OVERTIME    PIC 9(5)
01  NORMAL.OVERTIME     PIC 9(5)
01  OVERTIME.PAYMENT    PIC 9(11)V99
01  UNDERTIME.DECREASE  PIC 9(11)V99
01  PREMIUM             PIC 9(11)V99
01  BONUS               PIC 9(11)V99
01  CHLD.PAYMNT         PIC 9(11)V99
01  SENIOR.INDEMN       PIC 9(11)V99
01  EDUCATION.PAYM      PIC 9(11)V99
01  COMBUST.PAYM        PIC 9(11)V99
01  MILITARY.PAYM       PIC 9(11)V99
01  TRAVEL.EXP          PIC 9(11)V99
01  ENCOURAGE.PAYM      PIC 9(11)V99
01  INCREASE.PREPAYM    PIC 9(11)V99
01  PREPAYMENT          PIC 9(11)V99
01  SPECIAL.DISCOUNT    PIC 9(11)V99
01  GENERAL.DISCOUNT    PIC 9(11)V99
01  EMIGRANT.DISCOUNT   PIC 9(11)V99
01  INFIRM.DISCOUNT     PIC 9(11)V99
01  CHILD.DISCOUNT      PIC 9(11)V99
01  EDUCATION.DISCOUNT  PIC 9(11)V99
01  NO.INSURANCE.DAY    PIC 99
01  TAX.CLASS           PIC 99
01  GROSS.INSUR.AMOUNT  PIC 9(11)V99
01  GROSS.TAX.AMOUNT    PIC 9(11)V99
01  INSURANCE.PREMIUM   PIC 9(11)V99
01  INCOME.TAX          PIC 9(11)V99
01  DEDUCTION OCCURS 8 TIMES

    02  DEDUC.TYPE                      PIC 9(11)V99

01  ROUND.OFF.FACTOR    PIC 999
01  NET.AMOUNT          PIC 9(11)V99
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RECORD NAME IS DEPT.STATISTICS.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01   DEPT.CODE          PIC 99    TYPE IS DATA-BASE-KEY
01   DEPT.NAME          PIC X(20)
01   NO.EMPLOYEE        PIC 9(5)
01   NO.DIRECT.WORKER   PIC 9(5)
01   NO.INDRCT.WORKER   PIC 9(5)
01   EMPLOYEE.PAYMENTS  PIC 9(11)V99
01   DIRECT.WORK.PAYMNT PIC 9(11)V99
01   INDRCT.WORK.PAYMNT PIC 9(11)V99


RECORD NAME IS EXEMPTION.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01   EXEMPT.TYPE        PIC 99    TYPE IS DATA-BASE-KEY
01   AMOUNT             PIC 9(11)V99
01   INSUR.EXEMP.RATE   PIC 999
01   TAX.EXEMP.RATE     PIC 999


RECORD NAME IS TAX.RATE.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01   UPPER.LIMIT        PIC 9(11)V99    TYPE IS DATA-BASE-KEY
01   TAX.PERCENTAGE     PIC 99


RECORD NAME IS FIXED.ASSETS.C
LOCATION MODE SYSTEM
WITHIN CONSTRN.CENTER

01   CODE               PIC 9(9)    TYPE IS DATA-BASE-KEY
01   NAME               PIC X(20)
01   PURCHASE.DATE      PIC 9(6)
01   INITIAL.PRICE      PIC 9(11)V99
01   DEPR.RATE          PIC 999
01   DEPT.USING         PIC 99


RECORD NAME IS WAREHOUSE.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   WAREHOUSE.NO       PIC 99    TYPE IS DATA-BASE-KEY
01   WAREHOUSE.NAME     PIC X(15)
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RECORD NAME IS PART.ID.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   PART.CODE          PIC 9(9)    TYPE IS DATA-BASE-KEY
01   PART.NAME          PIC X(25)
01   PART.UNIT          PIC X(2)


RECORD NAME IS REMAINDER.CR
LOCATION MODE VIA PRCR SET
WITHIN CONSTRN.REGION.I

01   QUANTITY           PIC 9(7)V999
01   TOTAL.PRICE        PIC 9(11)V99
01   MIN.STOCK.LEV      PIC 9(7)V999
01   MAX.STOCK.LEV      PIC 9(7)V999
01   R.O.Q.             PIC 9(7)V999
01   R.O.P.             PIC 9(7)V999


RECORD NAME IS R.B.CR
LOCATION MODE VIA SRBCR SET
WITHIN CONSTRN.REGION.I

01   PRICE              PIC 9(11)V99
01   QUOTA              PIC 9(7)V999


RECORD NAME IS SUPPLIER.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   SUPPLIER.CODE      PIC 9(6)    TYPE IS DATA-BASE-KEY
01   SUPPLIER.NAME      PIC X(20)
01   SUPPLIER.ADDRESS   PIC X(20)
01   PRODUCTION.CAPACITY PIC 9(7)V999
01   INFORMATION        PIC X(40)


RECORD NAME IS MONTH.A.CR
LOCATION MODE CALC PROC-MACR
     USING YEAR,MONTH
     DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.REGION.I

01   MONTH              PIC 99
01   YEAR               PIC 99
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RECORD NAME IS ORDER.PLAN.CR
LOCATION MODE CALC PROC-OP
    USING DEMAND.NO, SUPPLIER.CODE
    DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.REGION.I

01   QUANTITY.PLAN      PIC 9(7)V999
01   DEMAND.NO          PIC 9(5)
01   QUANTITY.ORDER     PIC 9(7)V999
01   TOTAL.PRICE.REAL   PIC 9(11)V99
01   TOTAL.PRICE.PLAN   PIC 9(11)V99
01   SUPPLIER.CODE      PIC 9(6)


RECORD NAME IS ORDER.REAL.CR
LOCATION MODE CALC PROC-OR USING DATE,SUPPLIER.CODE
    DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.REGION.I

01   DATE               PIC 9(6)
01   INVOICE.NO.        PIC 9(8)
01   TOTAL.PRICE        PIC 9(11)V99
01   SUPPLIER.CODE      PIC 9(6)


RECORD NAME IS SUPPLY.CR
LOCATION MODE CALC PROC-SUPPLY USING WORKSITE.CODE
    DUPLICATES ARE ALLOWED
WITHIN CONSTRN.REGION.I

01   WORKSITE.CODE      PIC 9(5)
01   QUANTITY.PLAN      PIC 9(7)V999
01   SHIP.DATE.PLAN     PIC 9(6)
01   QUANTITY.REAL      PIC 9(7)V999
01   SHIP.DATE.REAL     PIC 9(6)
01   TOTAL.PRICE        PIC 9(11)V99


RECORD NAME IS PRODUCTION.DATA.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   PROCESS.CODE       PIC 9(6)    TYPE IS DATA-BASE-KEY
01   PROCESS.NAME       PIC X(20)
01   UNIT               PIC AA


RECORD NAME IS MATERIAL.DATA.CR
LOCATION MODE VIA PDMATCR SET
WITHIN CONSTRN.REGION.I

01   MATERIAL.CODE      PIC 9(9)
01   QUANT.PER.UNIT.PROD  PIC 9(7)V999
01   UNIT.PRICE         PIC 9(11)V99
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RECORD NAME IS MANPOWER.DATA.CR
LOCATION MODE VIA PDMANCR SET
WITHIN CONSTRN.REGION.I

01   MANPOWER.TYPE       PIC 9(4)
01   MAN.TIME            PIC 9(6)
01   UNIT.PRICE          PIC 9(11)V99


RECORD NAME IS MACHINE.DATA.CR
LOCATION MODE VIA PDMACHCR SET
WITHIN CONSTRN.REGION.I

01   MACHINE.CODE        PIC 9(5)
01   TIME.PER.PROD       PIC 9(6)
01   UNIT.PRICE          PIC 9(11)V99


RECORD NAME IS REGION
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   REGION.CODE         PIC 99    TYPE IS DATA-BASE-KEY
01   REGION.NAME         PIC X(15)


RECORD NAME IS PROJECT
LOCATION MODE VIA RP SET
WITHIN CONSTRN.REGION.I

01   PROJECT.CODE        PIC 999
01   PROJECT.NAME        PIC X(15)


RECORD NAME IS WORKSITE
LOCATION MODE VIA PW SET
WITHIN CONSTRN.REGION.I

01   WORKSITE.CODE       PIC 99
01   WORKSITE.NAME       PIC X(15)


RECORD NAME IS UNIT
LOCATION MODE VIA WU SET
WITHIN CONSTRN.REGION.I

01   UNIT.CODE           PIC 99
01   UNIT.NAME           PIC X(15)
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RECORD NAME IS DETAIL
LOCATION MODE VIA UD SET
WITHIN CONSTRN.REGION.I

01   DETAIL.CODE        PIC 99
01   DETAIL.NAME        PIC X(15)


RECORD NAME IS WORK
LOCATION MODE VIA DW SET
WITHIN CONSTRN.REGION.I

01   WORK.CODE          PIC 9(6)
01   WORK.NAME          PIC X(20)
01   UNIT               PIC AA
01   TOTAL.QUANTITY     PIC 9(7)V999
01   MONEY.RETURN       PIC 9(11)V99
01   PLAN.BEGIN.DATE    PIC 9(6)
01   PLAN.END.DATE      PIC 9(6)
01   A TYPE BINARY
01   REALIZATION.DATE OCCURS A TIMES

     02   BEGIN                    PIC 9(6)
     02   END                      PIC 9(6)
     02   QUANTITY                 PIC 9(7)V999
     02   MONEY.TURN               PIC 9(11)V99


RECORD NAME IS MATERIAL.USAGE
LOCATION MODE VIA UMATU SET
WITHIN CONSTRN.REGION.I

01   MATERIAL.CODE      PIC 9(9)
01   QUANTITY.PLAN      PIC 9(7)V999
01   QUANTITY.USED      PIC 9(11)V99


RECORD NAME IS MANPOWER.USAGE
LOCATION MODE VIA WMANU SET
WITHIN CONSTRN.REGION.I

01   MANPOWER.TYPE      PIC 9(4)
01   MAN.TIME.PLAN      PIC 9(6)
01   MAN.TIME.USED      PIC 9(6)
01   PLAN.DATE          PIC 9(6)
01   A TYPE BINARY
01   REALIZATION OCCURS A TIMES

     02   DATE                     PIC 9(6)
     02   WORKER.NO                PIC 9(5)
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RECORD NAME IS MACHINE.USAGE
LOCATION MODE VIA WMACU SET
WITHIN CONSTRN.REGION.I

01   MACHINE.CODE        PIC 9(5)
01   TOTAL.TIME.PLAN     PIC 9(6)
01   TOTAL.TIME.USED     PIC 9(6)
01   PLAN.DATE           PIC 9(6)
01   REAL.DATE           PIC 9(6)


RECORD NAME IS MONTH.B
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   YEAR                PIC 99     TYPE IS DATA-BASE-KEY
01   MONTH               PIC 99


RECORD NAME IS IMPORT.LICENCE.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   FILE.NO             PIC 9(10)    TYPE IS DATA-BASE-KEY
01   CERTIF.DATE         PIC 9(6)
01   CERTIF.NO           PIC 9(15)
01   IMPORT.TYPE         PIC 9(7)
01   CURRENCY.TYPE       PIC X(5)
01   MONETRY.VALUE       PIC 9(11)V99
01   DEPOSIT.PERCENT     PIC 99
01   DEPOSIT.VALUE       PIC 9(11)V99
01   DEPOSIT.DATE        PIC 9(6)
01   DEPOSIT.BANK        PIC X(10)
01   LICENCE.DATE        PIC 9(6)
01   LICENCE.NO          PIC 9(15)
01   VALIDITY            PIC 9(6)
01   BEGIN.DATE          PIC 9(6)
01   EXTRA.PERIOD        PIC 9(6)
01   IMPORT.BANK.REF     PIC 9(15)
01   IMPORT.BANK.CODE    PIC 9(10)


RECORD NAME IS LICENCE.DETAIL.CR
LOCATION MODE DIRECT MATL.CODE
WITHIN CONSTRN.REGION.I

01   MATL.CODE           PIC 9(9)     TYPE IS DATA-BASE-KEY
01   MATL.NAME           PIC X(25)
01   QUOTA.QUAN          PIC 9(7)V999
01   QUOTA.VALUE         PIC 9(11)V99
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RECORD NAME IS IMPORT.PREP.CR
LOCATION MODE VIA LDIPCR SET
WITHIN CONSTRN.REGION.I

01   PROFORM.INVOICE

     02   NO                           PIC 9(8)
     02   DATE                         PIC 9(6)
     02   FIRM.CODE                    PIC 9(6)
     02   QUANTITY                     PIC 9(7)V999
     02   VALUE                        PIC 9(11)V99

01   CORRESPND.BANK     PIC X(10)
01   INTERMDT.BANK      PIC X(10)

01   LETTER.CREDIT

     02   OPEN.DATE                    PIC 9(6)
     02   VALIDITY                     PIC 9(6)
     03   AMOUNT                       PIC 9(11)V99

01   COUNTRY           PIC X(10)
01   EXPLANATION       PIC X(40)
01   TARIF.NO          PIC 9(15)
01   TAX.PERCENT       PIC 99


RECORD NAME IS IMPORT.REAL.CR
LOCATION MODE VIA LDIRCR SET
WITHIN CONSTRN.REGION.I

01   IMPORT.DATE       PIC 9(6)
01   EXCHANGE.RATE     PIC 9(5)
01   CUSTM.ARRIV.DATE  PIC 9(6)
01   TRANSP.TYPE       PIC X(10)
01   TRANSP.FIRM       PIC X(10)
01   INSURANCE.COST    PIC 9(11)V99
01   FREIGHT.COST      PIC 9(11)V99
01   QUANTITY          PIC 9(7)V999
01   TOTAL.PRICE       PIC 9(11)V99
01   TRANSFER

     02   DATE                         PIC 9(6)
     02   NO                           PIC 9(15)
     02   EXCHANGE.RATE                PIC 9(5)

01   INSURANCE.POLICY

     02   FIRM                         PIC X(10)
     02   DATE                         PIC 9(6)
     02   NO                           PIC 9(15)

01   REGISTRATION

     02   DATE                         PIC 9(6)
     02   NO                           PIC 9(15)
     02   EXCHANGE.RATE                PIC 9(5)
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01   CUSTOM.TAX

     02   PAYM.DATE              PIC 9(6)
     02   PAYM.NO               PIC 9(15)
     02   AMOUNT                PIC 9(11)V99

01   EXPLANATION      PIC X(40)
01   INVOICE.NO       PIC 9(8)


RECORD NAME CERTF.DEPOSIT.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   BANK.CODE        PIC 9(10)     TYPE IS DATA-BASE-KEY
01   VALUE            PIC 9(11)V99
01   CURRENCY.TYPE    PIC X(5)
01   VALIDITY         PIC 9(6)
01   BEGIN.DATE       PIC 9(6)
01   CERTF.NO         PIC 9(15)
01   FIRM.GIVEN       PIC X(20)
01   GIVE.DATE        PIC 9(6)
01   BACK.DATE        PIC 9(6)
01   INTEREST.RATE    PIC 9(2)


RECORD NAME IS BS.TOTAL.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   DATE             PIC 9(6)     TYPE IS DATA-BASE-KEY
01   VALUE.TOTAL      PIC 9(11)V99


RECORD NAME IS BS.FORMAT.CR
LOCATION MODE VIA BTBFCR SET
WITHIN CONSTRN.REGION.I

01   LINE.NO          PIC 99
01   ASST.LIABLTY     PIC A
01   TITLE            PIC X(35)
01   UNDERLINE        PIC A
01   COLUMN.NO        PIC 999
01   AMOUNT           PIC 9(11)V99


RECORD NAME IS BS.ACCOUNT.CR
LOCATION MODE DIRECT LINE.NO
WITHIN CONSTRN.REGION.I

01   LINE             PIC 99     TYPE IS DATA-BASE-KEY
01   TITLE            PIC X(35)
01   COLUMN.NO        PIC 999
01   AMOUNT           PIC 9(11)V99
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RECORD NAME IS PL.RESULT.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   DATE                PIC 9(6)     TYPE IS DATA-BASE-KEY
01   VALUE.TOTAL         PIC 9(11)V99


RECORD NAME IS PL.FORMAT.CR
LOCATION MODE VIA PRPFCR SET
WITHIN CONSTRN.REGION.I

01   LINE.NO             PIC 99
01   ASST.LIABLTY        PIC A
01   TITLE               PIC X(35)
01   UNDERLINE           PIC A
01   COLUMN.NO           PIC 999
01   AMOUNT              PIC 9(11)V99


RECORD NAME IS PL.ACCOUNT.CR
LOCATION MODE DIRECT LINE.NO
WITHIN CONSTRN.REGION.I

01   LINE.NO             PIC 99    TYPE IS DATA-BASE-KEY
01   TITLE               PIC X(35)
01   COLUMN.NO           PIC 999
01   AMOUNT              PIC 9(11)V99


RECORD NAME IS BUDGET.DATE.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   YEAR                PIC 99    TYPE IS DATA-BASE-KEY
01   MONTH               PIC 99


RECORD NAME IS BUDGET.TOTAL.CR
LOCATION MODE DIRECT ACCOUNT.NO
WITHIN CONSTRN.REGION.I

01   ACCOUNT.NO          PIC 9(6)     TYPE IS DATA-BASE-KEY
01   ACCOUNT.NAME        PIC X(20)
01   BUDGET.AMOUNT       PIC 9(11)V99
01   REAL.AMOUNT         PIC 9(11)V99
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RECORD NAME IS BUDGET.LEVEL.I.CR
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
     DUPLICATES ARE ALLOWED
WITHIN CONSTRN.REGION.I

01   LEVEL.NO            PIC 9999
01   BUDAC TYPE BINARY
01   ACCOUNT OCCURS BUDAC TIMES

     02   ACCOUNT.NO              PIC 9(6)
     02   ACCOUNT.NAME            PIC X(20)
     02   BUDGET.AMOUNT           PIC 9(11)V99
     02   REAL.AMOUNT             PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.Z.CR
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
     SUPLICATES ARE ALLOWED
WITHIN CONSTRN.REGION.I

01   LEVEL.NO            PIC 9999
01   BUDAC TYPE BINARY
01   ACCOUNT OCCURS BUDAC TIMES

     02   ACCOUNT.NO              PIC 9(6)
     02   ACCOUNT.NAME            PIC X(20)
     02   BUDGET.AMOUNT           PIC 9(11)V99
     02   REAL.AMOUNT             PIC 9(11)V99


RECORD NAME IS CREDIT.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   CERTIFCT.NO      PIC 9(15)    TYPE IS DATA-BASE-KEY
01   RECEIV.DATE      PIC 9(6)
01   CREDIT.TYPE      PIC X(8)
01   EXPLANATION      PIC X(40)
01   LIMIT.VALUE      PIC 9(11)V99
01   VALIDITY         PIC 9(6)
01   CURRENCY.TYPE    PIC X(5)
01   REF.NO           PIC 9(15)
01   DUR TYPE BINARY
01   INTEREST OCCURS DUR TIMES

     02   INTEREST.RATE           PIC 99
     02   INTRST.RATE.DATE        PIC 9(6)


RECORD NAME IS CREDIT.GET.CR
LOCATION MODE DIRECT DATE
WITHIN CONSTRN.REGION.I

01   DATE             PIC 9(6)     TYPE IS DATA-BASE-KEY
01   AMOUNT           PIC 9(11)V99
01   EXPLANATION      PIC X(40)
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RECORD NAME IS CREDIT.PAY.CR
LOCATION MODE DIRECT DATE
WITHIN CONSTRN.REGION.I

01   DATE              PIC 9(6)     TYPE IS DATA-BASE-KEY
01   AMOUNT            PIC 9(11)V99
01   EXPLANATION       PIC X(40)


RECORD NAME IS PAYABLES.CR
LOCATION MODE DIRECT TYPE.PAYABLE
WITHIN CONSTRN.REGION.I

01   TYPE.PAYABLE      PIC 9999     TYPE IS DATA-BASE-KEY
01   CREDITOR          PIC X(10)
01   AMOUNT            PIC 9(11)V99
01   DATE.PLAN         PIC 9(6)
01   DATE.DUE          PIC 9(6)
01   DATE.REAL         PIC 9(6)
01   REFERENCE         PIC X(15)


RECORD NAME IS RECEIVABLES.CR
LOCATION MODE DIRECT TYPE.RECEIV
WITHIN CONSTRN.REGION.I

01   TYPE.RECEIV       PIC 9999     TYPE IS DATA-BASE-KEY
01   DEBITOR           PIC X(10)
01   AMOUNT            PIC 9(11)V99
01   DATE.PLAN         PIC 9(6)
01   DATE.DUE          PIC 9(6)
01   DATE.REAL         PIC 9(6)
01   REFERENCE         PIC X(15)


RECORD NAME IS BOND.DETAIL.CR
LOCATION MODE CALC PROC-BDCR USING ENDORSE.DATE,RECEIV.DATE
     DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.REGION.I

01   RECEIV.DATE       PIC 9(6)
01   DEBITOR           PIC X(10)
01   ENDORS.FROM       PIC X(10)
01   ENDORS.TO         PIC X(10)
01   ENDORSE.DATE      PIC 9(6)
01   ROLL.NO           PIC 9(15)
01   DEBIT.PLACE       PIC X(12)
01   ENDORSE.REF       PIC 9(15)
01   BANK.REF.NO       PIC 9(15)
01   USAGE.TYPE        PIC X(2)
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RECORD NAME IS LEDGER.ACCNT.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   ACCOUNT.NO          PIC 999     TYPE IS .DATA-BASE-KEY
01   ACCOUNT.NAME        PIC X(20)
01   DRCR               PIC A
01   REMAINDER          PIC 9(11)V99


RECORD NAME IS SUBSDR.ACCNT.CR
LOCATION MODE CALC PROC-ACH USING ACCOUNT.NO
     DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.REGION.I

01   ACCOUNT.NO          PIC 99
01   ACCOUNT.NAME        PIC X(20)
01   DRCR               PIC A
01   REMAINDER          PIC 9(11)V99


RECORD NAME IS JORNAL.ACCNT.CR
LOCATION MODE CALC PROC-ACH USING ACCOUNT.NO
     DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.REGION.I

01   ACCOUNT.NO          PIC 999
01   ACCOUNT.NAME        PIC X(20)
01   DRCR               PIC A
01   REMAINDER          PIC 9(11)V99


RECORD NAME IS MONTH.CR
LOCATION MODE CALC PROC-ACH USING YEAR
     DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.REGION.I

01   YEAR               PIC 99
01   MONTH              PIC 99


RECORD NAME IS JOURNAL.CR
LOCATION MODE CALC PROC-ACH USING DATE
     DUPLICATES ARE ALLOWED
WITHIN CONSTRN.REGION.I

01   DATE               PIC 9(6)
01   TRANSACT.NO        PIC 9(6)
01   DRCR               PIC A
01   AMOUNT             PIC 9(11)V99
01   EXPLANATION        PIC X(40)
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RECORD NAME IS BANKS.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   BANK.CODE          PIC 9(10)     TYPE IS DATA-BASE-KEY
01   BANK.NAME          PIC X(20)
01   BRANCH.NAME        PIC X(20)
01   BANK.ACCNT.NO      PIC 9(15)
01   BACC TYPE BINARY
01   ACCNT OCCURS BACC TIMES

     02   ACCOUNT.TYPE            PIC 9(15)
     02   REMAINDER              PIC 9(11)V99


RECORD NAME IS ENGRAVE
LOCATION MODE DIRECT REPORT.NO
WITHIN CONSTRN.REGION.I

01   REPORT.NO          PIC 9(5)      TYPE IS DATA-BASE-KEY
01   REPORT.DATE        PIC 9(6)
01   ENGRAV.AMOUNT      PIC 9(11)V99
01   PREPARATION.PAYMENTS

     02   MACHINE                PIC 9(11)V99
     02   MATERIAL               PIC 9(11)V99
     02   OTHER                  PIC 9(11)V99

01   RECENT.MONTH.REMAIN PIC 9(11)V99
01   TOTAL AMOUNT       PIC 9(11)V99
01   COLLECT.DATE       PIC 9(6)
01   COLLECT.AMOUNT     PIC 9(11)V99
01   PREPAYMN.REMAIN    PIC 9(11)V99


RECORD NAME IS PERSONNEL.LIST.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   ID.NO              PIC 9(8)      TYPE IS DATA-BASE-KEY
01   NAME               PIC X(20)
01   ADDRESS            PIC X(20)
01   BIRTH.DATE         PIC 9(6)
01   SEX                PIC A
01   ENTER.DATE         PIC 9(6)
01   INSURANCE.NO       PIC 9(9)
01   TAX.NO             PIC 9(9)
01   NATIONALITY        PIC 9(2)
01   INFIRM.CLASS       PIC 9
01   FL TYPE BINARY
01   FOR.LANG OCCURS  FL TIMES

     02   FOREIGN.LANG            PIC X(10)
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01   FATHER.NAME        PIC X(10)
01   MOTHER.NAME        PIC X(10)
01   BIRTH.PLACE        PIC X(10)
01   RELIGION           PIC X(10)
01   ID.CARD

     02   PROVINCE                  PIC X(10)
     02   TOWN                      PIC X(10)
     02   DISTRICT                  PIC X(10)
     02   QUARTER                   PIC X(10)
     02   HOUSE                     PIC X(6)
     02   BINDING                   PIC 9(6)
     02   PAGE                      PIC 9(6)
     02   CARD.NO                   PIC 9(9)


RECORD NAME IS EDUCATION.CR
LOCATION MODE VIA PERSEDCR SET
WITHIN CONSTRN.REGION.I

01   SCHOOL.NAME        PIC X(10)
01   GRADTN.DATE        PIC 9(6)
01   DIPLOME.NO         PIC 9(5)
01   FIELD              PIC X(10)


RECORD NAME IS REFERENCES.CR
LOCATION MODE VIA PERSREFCR SET
WITHIN CONSTRN.REGION.I

01   NAME               PIC X(20)
01   ADDRESS            PIC X(20)
01   POSITION           PIC X(10)


RECORD NAME IS EXPERIENCE.CR
LOCATION MODE VIA PERSEXCR SET
WITHIN CONSTRN.REGION.I

01   COMPANY.NAME       PIC X(15)
01   COMPANY.ADDRESS    PIC X(20)
01   POSITION           PIC X(10)
01   LAST.SALARY        PIC 9(11)V99


RECORD NAME IS PREVIOUS.WORK.CR
LOCATION MODE VIA PERSPWCR SET
WITHIN CONSTRN.REGION.I

01   DEPT.CODE          PIC 99
01   BEGIN.DATE         PIC 9(6)
01   END.DATE           PIC 9(6)
01   POSITION           PIC X(10)
01   SALARY             PIC 9(11)V99
01   GRADES             PIC 9(5)
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RECORD NAME IS FAMILY.INFO.CR
LOCATION MODE VIA PERSFICR SET
WITHIN CONSTRN.REGION.I

01  MARITAL.STATUS    PIC AA
01  SPOUSE.NAME       PIC X(10)
01  SPOUSE.WORK       PIC X(10)
01  CHLD TYPE BINARY
01  CHILD OCCURS CHLD TIMES

    02  CHILD.NAME              PIC X(10)
    02  CH.BIRTH.DATE           PIC 9(6)
    02  EDUCATION               PIC 99
    02  MARITAL.STAT.           PIC 99


RECORD NAME IS ACTUAL.WORK.CR
LOCATION MODE VIA PERSAWCR SET
WITHIN CONSTRN.REGION.I

01  DEPT.CODE         PIC 99
01  ENTER.DATE        PIC 9(6)
01  POSITION          PIC X(10)
01  SALARY            PIC 9(11)V99
01  GRADE             PIC 9(5)
01  NEXT.LEAVE.DATE   PIC 9(6)
01  NEXT.LEAVE.DATE   PIC 9(6)
01  LVE TYPE BINARY
01  LEAVE OCCURS LVE TIMES

    02  PAST.LEAVE.DATE         PIC 9(6)
    02  PAST.RETRN.DATE         PIC 9(6)


RECORD NAME IS PAY.ROLL.CR
LOCATION MODE VIA PERSPRCR SET
WITHIN CONSTRN.REGION.I

01  MONTH             PIC 99
01  YEAR              PIC 99
01  WORK.DAY.TOTAL    PIC 99
01  ANNUAL.LEAVE.TIME PIC 999
01  COMPELG.TIME      PIC 999
01  WEEKLY.LEAVE.TIME PIC 9(5)
01  OTHER.LEAVE.TIME  PIC 9(5)
01  HOLIDAY.OVERTIME  PIC 9(5)
01  NORMAL.OVERTIME   PIC 9(5)
01  OVERTIME.PAYMENT  PIC 9(11)V99
01  UNDERTIME.DECREASE PIC 9(11)V99
01  PREMIUM           PIC 9(11)V99
01  BONUS             PIC 9(11)V99
01  CHLD.PAYMNT       PIC 9(11)V99
01  SENIOR.INDEMN     PIC 9(11)V99
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01   EDUCATION.PAYM        PIC 9(11)V99
01   COMBUST.PAYM          PIC 9(11)V99
01   MILITARY.PAYM         PIC 9(11)V99
01   TRAVEL.EXP            PIC 9(11)V99
01   ENCOURAGE.PAYM        PIC 9(11)V99
01   INCREASE.PREPAYM      PIC 9(11)V99
01   PREPAYMENT            PIC 9(11)V99
01   SPECIAL.DISCOUNT      PIC 9(11)V99
01   GENERAL.DISCOUNT      PIC 9(11)V99
01   EMIGRANT.DISCOUNT     PIC 9(11)V99
01   INFIRM.DISCOUNT       PIC 9(11)V99
01   CHILD.DISCOUNT        PIC 9(11)V99
01   EDUCATION.DISCOUNT    PIC 9(11)V99
01   NO.INSURANCE.DAY      PIC 99
01   TAX.CLASS             PIC 99
01   GROSS.INSUR.AMOUNT    PIC 9(11)V99
01   GROSS.TAX.AMOUNT      PIC 9(11)V99
01   INSURANCE.PREMIUM     PIC 9(11)V99
01   INCOME.TAX            PIC 9(11)V99
01   DEDUCTION OCCURS 8 TIMES

     02   DEDUC.TYPE                    PIC 9(11)V99

01   ROUND.OFF.FACTOR      PIC 9(11)V99
01   NET.AMOUNT            PIC 9(11)V99


RECORD NAME IS DEPT.STATISTICS.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   DEPT.CODE             PIC 99     TYPE IS DATA-BASE-KEY
01   DEPT.NAME             PIC X(20)
01   NO.EMPLOYEE           PIC 9(5)
01   NO.DIRECT.WORKER      PIC 9(5)
01   NO.INDRCT.WORKER      PIC 9(5)
01   EMPLOYEE.PAYMNTS      PIC 9(11)V99
01   DIRECT.WORK.PAYMNT    PIC 9(11)V99
01   INDRCT.WORK.PAYMNT    PIC 9(11)V99


RECORD NAME IS EXEMPTION.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   EXEMPT.TYPE           PIC 99     TYPE IS DATA-BASE-KEY
01   AMOUNT                PIC 9(11)V99
01   INSUR.EXEMP.RATE      PIC 999
01   TAX.EXEMP.RATE        PIC 999
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RECORD NAME IS TAX.RATE.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   UPPER.LIMIT          PIC 9(11)V99   TYPE IS DATA-BASE-KEY
01   TAX.PERCENTAGE       PIC 99


RECORD NAME IS MONTH.F.CR
LOCATION MODE DIRECT MONTH
WITHIN CONSTRN.REGION.I

01   MONTH               PIC 99    TYPE IS DATA-BASE-KEY


RECORD NAME IS PLAN.REAL.CR
LOCATION MODE VIA MFPRCR SET
WITHIN CONSTRN.REGION.I

01   WORKER.TYPE          PIC 99
01   PLAN.MAN.HOUR        PIC 9(8)
01   PLAN.MAN             PIC 9(5)
01   REAL.MAN.HOUR        PIC 9(8)
01   REAL.MAN             PIC 9(8)
01   PLAN.SALARY          PIC 9(11)V99
01   REAL.SALARY          PIC 9(11)V99


RECORD NAME IS MACHINE.LIST.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   MACHINE.CODE         PIC 9(9)    TYPE IS DATA-BASE-KEY
01   MACHINE.NAME         PIC X(20)
01   MANUFACT.NAME        PIC X(20)
01   MANUFACT.ADDRESS     PIC X(20)
01   DELIVER.DATE         PIC 9(6)
01   PRICE                PIC 9(11)V99
01   CODE OF.MANUFT       PIC 9(9)
01   CAPACITY             PIC 9(12)
01   PWT TYPE BINARY
01   POWER OCCURS PWT TIMES

     02   TYPE                     PIC 9(3)
     02   WORK.CONSUMP.            PIC 9(12)
     02   IDLE.CONSUMP.            PIC 9(12)

01   GUARANTEE.PERIOD     PIC 9(6)
01   AVRG.LIFE            PIC 9(6)
01   DEPR.RATE            PIC 999
01   USAGE.INFO           PIC X(13)
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RECORD NAME IS MONTH.G.CR
LOCATION MODE DIRECT YEAR
WITHIN CONSTRN.REGION.I

01  YEAR             PIC 99    TYPE IS DATA-BASE-KEY
01  MONTH            PIC 99


RECORD NAME IS PREVIOUS.USE.CR
LOCATION MODE DIRECT REGION.CODE
WITHIN CONSTRN.REGION.I

01  REGION.CODE      PIC 99    TYPE IS DATA-BASE-KEY
01  ARRIV.DATE       PIC 9(6)
01  LEAV.DATE        PIC 9(6)


RECORD NAME IS PRESENT.USE.CR
LOCATION MODE DIRECT WORKSITE.CODE
WITHIN CONSTRN.REGION.I

01  WORKSITE.CODE    PIC 99    TYPE IS DATA-BASE-KEY
01  ARRIVAL.DATE     PIC 9(6)
01  ARRIVAL.TIME     PIC 9999
01  LEAVE.DATE       PIC 9(6)
01  LEAVE.TIME       PIC 9999
01  OPER.CODE        PIC 9(8)


RECORD NAME IS PLAN.CR
LOCATION MODE DIRECT WORKSITE.CODE
WITHIN CONSTRN.REGION.I

01  WORKSITE.CODE    PIC 99    TYPE IS DATA-BASE-KEY
01  ARRIVAL.DATE     PIC 9(6)
01  LEAVE.DATE       PIC 9(6)


RECORD NAME IS FAILURE.CR
LOCATION MODE VIA MLFAILCR SET
WITHIN CONSTRUN.REGION.I

01  BREAK.DATE       PIC 9(6)
01  REPAIR.DATE      PIC 9(6)
01  Q TYPE BINARY
01  PC.REPLACED OCCURS Q TIMES

    02  PART.CODE              PIC 9(9)

01  FIRM.REPAIR      PIC X(10)
01  EXPLANATION      PIC X(40)
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RECORD NAME IS MAINT.DETAIL.CR
LOCATION MODE VIA MLMDTL SET
WITHIN CONSTRN.REGION.I

01   MAINT.DATE          PIC 9(6)
01   Q TYPE BINARY
01   REPLACEMENT OCCURS Q TIMES

     02   PART.CODE                PIC 9(9)

01   FIRM.MAINT          PIC X(10)


RECORD NAME IS MAINT.PLAN.CR
LOCATION MODE VIA MLLPLNCR SET
WITHIN CONSTRN.REGION.I

01   SUBPART.CODE        PIC 9(9)
01   MNT TYPE BINARY
01   USBPART OCCURS MNT TIMES

     02   REPAIR.PERIOD      PIC 9(6)
     02   LAST.REPR.DATE     PIC 9(6)
     02   REPAIR.INFO        PIC X(40)


RECORD NAME IS SPARE.PARTS.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01   WAREHOUSE.NO      PIC 99
01   PART.CODE         PIC 9(9)    TYPE IS DATA-BASE-KEY
01   PART.NAME         PIC X(25)
01   UNIT              PIC 99
01   QUANT.REMAIN      PIC 9(7)V999
01   TOTAL.COST        PIC 9(11)V99
01   MIN.STOCK.LEV     PIC 9(7)V999
01   MAX.STOCK.LEV     PIC 9(7)V999
01   R.O.P.            PIC 9(7)V999
01   R.O.Q.            PIC 9(7)V999


RECORD NAME IS DEMAND.SUPPLY.CR
LOCATION MODE VIA SPDSPLCR SET
WITHIN CONSTRN.REGION.I

01   DEMAND.DATE       PIC 9(6)
01   DEMAND.QUAN       PIC 9(7)V999
01   DEMAND.DEPT       PIC 99
01   MACH.CODE         PIC 9(9)
01   SUPPLY.DATE       PIC 9(6)
01   SUPPLY.QUAN       PIC 9(7)V999
01   ROLL.NO           PIC 9(8)
01   COST              PIC 9(11)V99
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RECORD NAME IS R.N.CR
LOCATION MODE VIA SUPLRNCR SET
WITHIN CONSTRN.REGION.I

01  PRICE             PIC 9(11)V99
01  QUOTA             PIC 9(7)V999


RECORD NAME IS SUPPLIER.MACH.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01  SUPPLIER.CODE     PIC 9(6)     TYPE IS DATA-BASE-KEY
01  SUPPLIER.NAME     PIC X(20)
01  SUPPLIER.ADDRESS  PIC X(20)
01  INFORMATION       PIC X(40)


RECORD NAME IS ORDER.SHIP.CR
LOCATION MODE CALC PROC-OSCR USING ORDER.DATE,SUPPLIER.CODE
    DUPLICATES ARE NOT ALLOWED
WITHIN CONSTRN.REGION.I

01  ORDER.DATE        PIC 9(6)
01  ORDER.QUAN        PIC 9(4)V999
01  SUPPLIER.CODE     PIC 9(6)
01  DELIVERY.DATE     PIC 9(6)
01  DELIVERY.QUAN     PIC 9(7)V999
01  INVOICE.NO        PIC 9(8)
01  PRICE             PIC 9(11)V99


RECORD NAME IS FIXED.ASSETS.CR
LOCATION MODE SYSTEM
WITHIN CONSTRN.REGION.I

01  CODE              PIC 9(9)     TYPE IS DATA-BASE-KEY
01  NAME              PIC X(20)
01  PURCHASE.DATE     PIC 9(6)
01  INITIAL.PRICE     PIC 9(11)V99
01  DEPR.RATE         PIC 999
01  DEPT.USING        PIC 99
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RECORD NAME IS PART.LIST.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   WAREHOUSE.NO        PIC 99
01   PART.CODE           PIC 9(9)     TYPE IS DATA-BASE-KEY
01   PART.NAME           PIC X(25)
01   UNIT                PIC X(2)
01   QUAN.REMAIN         PIC 9(7)V999
01   TOTAL.COST          PIC 9(11)V999
01   MIN.STOCK.LEV       PIC 9(7)V999
01   MAX.STOCK.LEV       PIC 9(7)V999
01   R.O.Q               PIC 9(7)V999
01   R.O.P.              PIC 9(7)V999
01   LAST.ENTER.DATE     PIC 9(6)
01   QUAN.REMAIN         PIC 9(7)V999
01   COST                PIC 9(11)V99
01   TOTAL.TIME.QUAN     PIC 9(13)V999
01   TOTAL.TIME.MONEY    PIC 9(17)V99


RECORD NAME IS R.C.T
LOCATION MODE VIA SRCT SET
WITHIN TRUCK

01   PRICE               PIC 9(11)V99
01   QUOTA               PIC 9(7)V999


RECORD NAME IS SUPPLIER.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   SUPPLIER.CODE       PIC 9(6)     TYPE IS DATA-BASE-KEY
01   SUPPLIER.NAME       PIC X(20)
01   SUPPLIER.ADDRESS    PIC X(20)
01   PROD.CAPACITY       PIC 9(7)V999
01   INFORMATION         PIC X(40)


RECORD NAME IS AVG.STOCK.MONTH.T
.LOCATION MODE CALC PROC-ASMT USING MONTH
       DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   MONTH               PIC 9(2)
01   AVRG.QUANTITY       PIC 9(7)V999
01   AVRG.COST           PIC 9(11)V99
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RECORD NAME IS R.E.T.
LOCATION MODE CALC RET USING MONTH
     DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   MONTH              PIC 9(2)


RECORD NAME IS QC.STATISTICS.T
LOCATION MODE DIRECT TEST.CODE
WITHIN TRUCK

01   TEST.CODE          PIC 9(4)    TYPE IS DATA-BASE-KEY
01   NORMAL.LIMIT

     02   UPPER                     PIC 9(8)
     02   LOWER                     PIC 9(8)

01   CUMULATIVE

     02   TESTED.QUAN               PIC 9(7)V999
     02   DEFECT.QUAN               PIC 9(7)V999
     02   REPAIR.QUAN               PIC 9(7)V999


RECORD NAME IS DEMAND.T
LOCATION MODE CALC PROC-DEMT USING DEMAND.NO,CUSTOMER.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   DEMAND.NO        PIC 9(5)
01   DEMAND.DATE      PIC 9(6)
01   QUANTITY.ORDER   PIC 9(7)V999
01   CUSTOMER.CODE    PIC 9(6)
01   TOTAL.PRICE      PIC 9(11)V99
01   PROD.PRIORITY    PIC 9(4)
01   B TYPE BINARY
01   SHIPMENT OCCURS B TIMES

     02   DATE                      PIC 9(6)
     02   QUANTITY                  PIC 9(7)V999


RECORD NAME IS SELL.T
LOCATION MODE CALC PROC-SEUT UDING DELIVERY.DATE.
             CUSTOMER.CODE
     DUPLICATES ARE ALLOWED
WITHIN TRUCK

01   DELIVERY.DATE    PIC 9(6)
01   DELIVER.QUANTITY PIC 9(7)V999
01   TOTAL.PRICE      PIC 9(11)V99
01   TOTAL.COST       PIC 9(11)V99
01   CUSTOMER.CODE    PIC 9(6)
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RECORD NAME IS ORDER.PLAN.T
LOCATION MODE CALC PROC-OPT USING CONTRACT.NO,
             SUPPLIER.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   QUANTITY.PLAN      PIC 9(7)V999
01   OP TYPE BINARY
01   ORDER.DETAIL OCCURS OP TIMES

     02   CONTRACT.NO              PIC 9(5)
     02   QUANTITY                 PIC 9(7)V999
     02   TOTAL.COST               PIC 9(11)V99
     02   SUPPLIER.CODE            PIC 9(6)


RECORD NAME IS ORDER.REAL.T
LOCATION MODE CALC PROC-ORT USING DATE, SUPPLIER.CODE,
             INVOICE.NO
     DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   DATE             PIC 9(6)
01   INVOICE.NO       PIC 9(8)
01   SUPPLIER.CODE    PIC 9(6)
01   QUANTITY.DELIVER PIC 9(7)V999
01   PRICE.TOTAL      PIC 9(11)V99


RECORD NAME IS QC.TEST.T
LOCATION MODE DIRECT TEST.CODE
WITHIN TRUCK

01   TEST.CODE        PIC 9(4)    TYPE IS DATA-BASE-KEY
01   TEST.AMOUNT      PIC 9(7)V999
01   RESULT           PIC 9(8)


RECORD NAME IS TEST.DATA.T
LOCATION MODE SYSTEM
WITHIN TRUCK

.01   TEST.CODE       PIC 9(4)    TYPE IS DATA-BASE-KEY
01   TEST.NAME        PIC X(20)
01   NORMAL.LIMITS

     02   UPPER                    PIC 9(8)
     02   LOWER                    PIC 9(8)
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RECORD NAME IS SUPPLY.PLAN.T
LOCATION MODE CALC PROC-SUPPLANT USING DEPT.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   DEPT.CODE          PIC 9(2)
01   QUANTITY.PLAN      PIC 9(7)V999
01   MP TYPE BINARY
01   DEMAND OCCURS MP TIMES

     02   QUANTITY                PIC 9(7)V999
     02   DATE                    PIC 9(6)


RECORD NAME IS PRODUCTION.PLAN.T
LOCATION MODE CALC PROC-PRODPLANT USING DEPT.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   QUANTITY.PLAN      PIC 9(7)V999
01   TOTAL.COST         PIC 9(11)V99
01   DEPT.CODE          PIC 9(2)


RECORD NAME IS MONTH.Z.T
LOCATION MODE DIRECT MONTH
WITHIN TRUCK

01   MONTH              PIC 9(2)    TYPE IS DATA-BASE-KEY


RECORD NAME IS SUPPLY.REAL.T
LOCATION MODE CALC PROC-SUPREAL USING DATE,DEPT.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   DATE               PIC 9(6)
01   DEPT.CODE          PIC 9(2)
01   ROLL.NO            PIC 9(6)
01   QUANTITY.GIVEN     PIC 9(7)V999
01   TOTAL.COST         PIC 9(11)V99


RECORD NAME IS PRODUCTION.REAL.T
LOCATION MODE CALC PROC-PRODREALT USING DATE,
               DEPARTMENT.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   DATE               PIC 9(6)
01   ROLL.NO            PIC 9(6)
01   DEPARTMENT.CODE    PIC 9(2)
01   QUANTITY.IN        PIC 9(7)V999
01   TOTAL.COST         PIC 9(11)V99
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RECORD NAME IS MODEL
LOCATION MODE SYSTEM
WITHIN TRUCK

01   MODEL.CODE          PIC 9(5)     TYPE IS DATA-BASE-KEY
01   MODEL.NAME          PIC X(20)


RECORD NAME IS PROCESS
LOCATION MODE VIA MP SET
WITHIN TRUCK

01   PROCESS.CODE        PIC 9(5)
01   PROCESS.NAME        PIC X(20)
01   RESULT.PART.CODE    PIC 9(9)
01   UNIT.COST           PIC 9(11)V99
01   TIME.SCALE          PIC 9(6)
01   DEPT.CODE           PIC 99


RECORD NAME IS MATERIAL.USAGE
LOCATION MODE VIA PMATU SET
WITHIN TRUCK

01   PART.CODE           PIC 9(9)
01   QUAN.PER.PROD       PIC 9(7)V999


RECORD NAME IS MANPOWER.USAGE
LOCATION MODE VIA PMANU SET
WITHIN TRUCK

01   MANPOWER.TYPE       PIC 9(4)
01   UNIT.PROD.TIME      PIC 9(6)
01   NO.OF.MAN           PIC 9(6)
01   UNIT.TIME.COST      PIC 9(11)V99


RECORD NAME IS SUBPARTS
LOCATION MODE CALC PROC-SUBPRTS USING SUBPART.CODE
     DUPLICATES ARE ALLOWED
WITHIN TRUCK

01   SUBPART.CODE        PIC 9(9)
01   USAGE.RATE          PIC 9(7)V999
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RECORD NAME IS OPTIONAL.PARTS
LOCATION MODE CALC PROC-OPTPRTS USING OPTIONAL.PART.CODE
    DUPLICATES ARE ALLOWED
WITHIN TRUCK

01   OPTIONAL.PART.CODE  PIC 9(9)
01   INDEX               PIC X(6)
01   USAGE.RATE          PIC 9(7)V999


RECORD NAME IS MACHINE.USAGE
LOCATION MODE VIA PMACHU SET
WITHIN TRUCK

01   MACHINE.CODE     PIC 9(5)
01   TIME.PER.PROD    PIC 9(6)
01   UNIT.TIME.COST   PIC 9(11)V99
01   TM TYPE BINARY
01   ENERGY OCCURS TM TIMES

     02   TYPE                    PIC 9(3)
     02   USE.PER.PROD            PIC 9(6)
     02   UNIT.COST               PIC 9(11)V99


RECORD NAME IS IMPORT.LICENCE.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   FILE.NO          PIC 9(10)
         TYPE IS DATA-BASE-KEY
01   CERTIF.DATE      PIC 9(6)
01   CERTIF.NO        PIC 9(5)
01   IMPORT.TYPE      PIC 9(7)
01   CURRENCY.TYPE    PIC X(5)
01   MONETRY.VALUE    PIC 9(11)V99
01   DEPOSIT.PERCENT  PIC 99
01   DEPOSIT.VALUE    PIC 9(11)V99
01   DEPOSIT.DATE     PIC 9(6)
01   DEPOSIT.BANK     PIC X(10)
01   LICENCE.DATE     PIC 9(6)
01   LICENCE.NO       PIC 9(15)
01   VALIDITY         PIC 9(6)
01   BEGIN.DATE       PIC 9(6)
01   EXTRA.PERIOD     PIC 9(6)
01   IMPORT.BANK.REF  PIC 9(15)
01   IMPORT.BANK.CODE PIC 9(10)
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RECORD NAME IS LICENCE.DETAIL.T
LOCATION MODE DIRECT MATL.CODE
WITHIN TRUCK

01   MATL.CODE          PIC 9(9)    TYPE IS DATA-BASE-KEY
01   MATL.NAME          PIC X(25)
01   QUOTA.QUAN         PIC 9(7)V999
01   QUOTA.VALUE        PIC 9(11)V99


RECORD NAME IS IMPORT.PREP.T
LOCATION MODE VIA LDIPT SET
WITHIN TRUCK

01   PROFORM.INVOICE

     02   NO                    PIC 9(8)
     02   DATE                  PIC 9(6)
     02   FIRM.CODE             PIC 9(6)
     02   QUANTITY              PIC 9(7)V999
     02   VALUE                 PIC 9(11)V99

01   CORRESPND.BANK   PIC X(10)
01   INTERMDT.BANK    PIC X(10)
01   LETTER.CREDIT

     02   OPEN.DATE             PIC 9(6)
     02   VALIDITY              PIC 9(6)
     03   AMOUNT                PIC 9(11)V99

01   COUNTRY          PIC X(10)
01   EXPLANATION      PIC X(40)
01   TARIF.NO         PIC 9(15)
01   TAX.PERCENT      PIC 99


RECORD NAME IS IMPORT.REAL.T
LOCATION MODE VIA LDIRT SET
WITHIN TRUCK

01   IMPORT.DATE      PIC 9(6)
01   EXCHANGE.RATE    PIC 9(5)
01   CUSTM.ARRIV.DATE PIC 9(6)
01   TRANSP.TYPE      PIC X(10)
01   TRANSP.FIRM      PIC X(10)
01   INSURANCE.COST   PIC 9(11)V99
01   FREIGHT.COST     PIC 9(11)V99
01   QUANTITY         PIC 9(7)V999
01   TOTAL.PRICE      PIC 9(11)V99
01   TRANSFER

     02   DATE                  PIC 9(6)
     02   NO                    PIC 9(15)
     02   EXCHANGE.RATE         PIC 9(5)
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01   INSURANCE.POLICY

     02   FIRM                    PIC X(10)
     02   DATE                    PIC 9(6)
     02   NO                      PIC 9(15)

01   REGISTRATION

     02   DATE                    PIC 9(6)
     02   NO                      PIC 9(15)
     02   EXCHANGE.RATE           PIC 9(5)

01   CUSTOM.TAX

     02   PAYM.DATE               PIC 9(6)
     02   PAYM.NO                 PIC 9(15)
     02   AMOUNT                  PIC 9(11)V99

01   EXPLANATION       PIC X(40)
01   INVOICE.NO        PIC 9(8)


RECORD NAME COERTF.DEPOSIT.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   BANK.CODE        PIC 9(10)    TYPE IS DATA-BASE-KEY
01   VALUE            PIC 9(11)V99
01   CURRENCY.TYPE    PIC X(5)
01   VALIDITY         PIC 9(6)
01   BEGIN.DATE       PIC 9(6)
01   CERTF.NO         PIC 9(15)
01   FIRM.GIVEN       PIC X(20)
01   GIVE.DATE        PIC 9(6)
01   BACK.DATE        PIC 9(6)
01   INTEREST.RATE    PIC 9(2)


RECORD NAME IS BS.TOTAL.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   DATE             PIC 9(6)     TYPE IS DATA-BASE-KEY
01   VALUE.TOTAL      PIC 9(11)V99


RECORD NAME IS BS.FORMAT.T
LOCATION MODE VIA BRBFH SET
WITHIN TRUCK

01   LINE.NO          PIC 99
01   ASST.LIABLTY     PIC A
01   TITLE            PIC X(35)
01   UNDERLINE        PIC A
01   COLUMN.NO        PIC 999
01   AMOUNT           PIC 9(11)V99
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RECORD NAME IS BS.ACCOUNT.T
LOCATION MODE DIRECT LINE.NO
WITHIN TRUCK

01   LINE              PIC 99    TYPE IS DATA-BASE-KEY
01   TITLE             PIC X(35)
01   COLUMN.NO         PIC 999
01   AMOUNT            PIC 9(11)V99


RECORD NAME IS PL.RESULT.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   DATE              PIC 9(6)    TYPE IS DATA-BASE-KEY
01   VALUE.TOTAL       PIC 9(11)V99


RECORD NAME IS PL.FORMAT.T
LOCATION MODE VIA PRPFH SET
WITHIN TRUCK

01   LINE.NO           PIC 99
01   ASST.LIABLTY      PIC A
01   TITLE             PIC X(35)
01   UNDERLINE         PIC A
01   COLUMN.NO         PIC 999
01   AMOUNT            PIC 9(11)V99


RECORD NAME IS PL.ACCOUNT.T
LOCATION MODE DIRECT LINE.NO
WITHIN TRUCK

01   LINE.NO           PIC 99    TYPE IS DATA-BASE-KEY
01   TITLE             PIC X(35)
01   COLUMN.NO         PIC 999
01   AMOUNT            PIC 9(11)V99


RECORD NAME IS BUDGET.DATE.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   YEAR              PIC 99    TYPE IS DATA-BASE-KEY
01   MONTH             PIC 99
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RECORD NAME IS BUDGET.TOTAL.T
LOCATION MODE DIRECT ACCOUNT.NO
WITHIN TRUCK

01  ACCOUNT.NO        PIC 9(6)     TYP IS DATA-BASE-KEY
01  ACCOUNT.NAME      PIC X(20)
01  BUDGET.AMOUNT     PIC 9(11)V99
01  REAL.AMOUNT       PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.I.T
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
    DUPLICATES ARE ALLOWED
WITHIN TRUCK

01  LEVEL.NO          PIC 9999
01  BUDAC TYPE BINARY
01  ACCOUNT OCCURS BUDAC TIMES

    02  ACCOUNT.NO        PIC 9(6)
    02  ACCOUNT.NAME      PIC X(20)
    02  BUDGET.AMOUNT     PIC 9(11)V99
    02  REAL.AMOUNT       PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.Z.T
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
    DUPLICATES ARE ALLOWED
WITHIN TRUCK

01  LEVEL.NO          PIC 9999
01  BUDAC TYPE BINARY
01  ACCOUNT OCCURS BUDAC TIMES

    02  ACCOUNT.NO        PIC 9(6)
    02  ACCOUNT.NAME      PIC X(20)
    02  BUDGET.AMOUNT     PIC 9(11)V99
    02  REAL.AMOUNT       PIC 9(11)V99


RECORD NAME IS CREDIT.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01  CERTIFCT.NO       PIC 9(15)    TYPE IS DATA-BASE-KEY
01  RECEIV.DATE       PIC 9(6)
01  CREDIT.TYPE       PIC X(8)
01  EXPLANATION       PIC X(40)
01  LIMIT.VALUE       PIC 9(11)V99
01  VALIDITY          PIC 9(6)
01  CURRENCY.TYPE     PIC X(5)
01  REF.NO            PIC 9(15)
01  DUR TYPE BINARY
01  INTEREST OCCURS DUR TIMES
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        02  INTEREST.RATE            PIC 99
        02  INTRST.RATE.DATE         PIC 9(6)


RECORD NAME IS CREDIT.GET.T
LOCATION MODE DIRECT DATE
WITHIN TRUCK

01  DATE                PIC 9(6)    TYPE IS DATA-BASE-KEY
01  AMOUNT              PIC 9(11)V99
01  EXPLANATION         PIC X(40)


RECORD NAME IS CREDIT.PAY.T
LOCATION MODE DIRECT DATE
WITHIN TRUCK

01  DATE                PIC 9(6)    TYPE IS DATA-BASE-KEY
01  AMOUNT              PIC 9(11)V99
01  EXPLANATION         PIC X(40)


RECORD NAME IS PAYABLES.T
LOCATION MODE DIRECT TYPE PAYABLE
WITHIN TRUCK

01  TYPE.PAYABLE        PIC 9999    TYPE IS DATA-BASE-KEY
01  CREDITOR            PIC X(10)
01  AMOUNT              PIC 9(11)V99
01  DATE.PLAN           PIC 9(6)
01  DATE.DUE            PIC 9(6)
01  DATE.REAL           PIC 9(6)
01  REFERENCE           PIC X(15)


RECORD NAME IS RECEIVABLES.T
LOCATION MODE DIRECT.TYPE.RECEIV
WITHIN TRUCK

01  TYPE.RECEIV         PIC 9999    TYPE IS DATA-BASE-KEY
01  DEBITOR             PIC X(10)
01  AMOUNT              PIC 9(11)V99
01  DATE.PLAN           PIC 9(6)
01  DATE.DUE            PIC 9(6)
01  DATE.REAL           PIC 9(6)
01  REFERENCE           PIC X(15)
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RECORD NAME IS BOND.DETAIL.T
LOCATION MODE CALC PROC-BDT USING ENDORSE.DATE, RECEIV.DATE
    DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   RECEIV.DATE        PIC 9(6)
01   DEBITOR            PIC X(10)
01   ENDORS.FROM        PIC X(10)
01   ENDORS.TO          PIC X(10)
01   ENDORSE.DATE       PIC 9(6)
01   ROLL.NO            PIC 9(15)
01   DEBIT.PLACE        PIC X(12)
01   ENDORSE.REF        PIC 9(15)
01   BANK.REF.NO        PIC 9(15)
01   USAGE.TYPE         PIC X(12)


RECORD NAME IS LEDGER.ACCNT.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   ACCOUNT.NO         PIC 999    TYPE IS DATA-BASE-KEY
01   ACCOUNT.NAME       PIC X(20)
01   DRCR               PIC A
01   REMAINDER          PIC 9(11)V99


RECORD NAME IS SUBSDR.ACCNT.T
LOCATION MODE CALC PROC-ACT USING ACCOUNT.NO
    DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   ACCOUNT.NO         PIC 99
01   ACCOUNT.NAME       PIC X(20)
01   DRCR               PIC A
01   REMAINDER          PIC 9(11)V99


RECORD NAME IS JOURNAL.ACCNT.T
LOCATION MODE CALC PROC-ACT USING ACCOUNT.NO
    DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   ACCOUNT.NO         PIC 999
01   ACCOUNT.NAME       PIC X(20)
01   DRCR               PIC A
01   REMAINDER          PIC 9(11)V99
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RECORD NAME IS MONTH.T
LOCATION MODE CALC PROC-ACT USING YEAR
     DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   YEAR              PIC 99
01   MONTH             PIC 99


RECORD NAME IS JOURNAL.T
LOCATION MODE CALC PROC-ACT USING DATE
     DUPLICATES ARE ALLOWED
WITHIN TRUCK

01   DATE              PIC 9(6)
01   TRANSACT.NO       PIC 9(6)
01   DRCR              PIC A
01   AMOUNT            PIC 9(11)V99
01   EXPLANATION       PIC X(40)


RECORD NAME IS BANKS.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   BANK.CODE         PIC 9(10)     TYPE IS DATA-BASE-KEY
01   BANK.NAME         PIC X(20)
01   BRANCH.NAME       PIC X(20)
01   BANK.ACCNT.NO     PIC 9(15)
01   BACC TYPE BINARY
01   ACCNT OCCURS BACC TIMES

     02   ACCOUNT.TYPE            PIC 9(15)
     02   REMAINDER               PIC 9(11)V99


RECORD NAME IS DEPT.DATA.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   DEPT.CODE         PIC 99    TYPE IS DATA-BASE-KEY
01   DEPT.NAME         PIC X(20)
01   USAGE PERCENTAGES

     02   ELECTRICITY            PIC 99
     02   FUEL                   PIC 99
     02   WATER                  PIC 99

01   NPW TYPE BINARY
01   PRODUCT OCCURS NPW TIMES

     02   CODE                   PIC 9(9)
     02   PROD.NAME              PIC 9(6)
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RECORD NAME IS DEPT.COST.T
LOCATION MODE VIA DDDCT SET
WITHIN TRUCK

01   YEAR                 PIC 99
01   MONTH                PIC 99
01   DEPRECIATION         PIC 9(11)V99
01   OVERHEAD             PIC 9(11)V99
01   GENERAL.COST         PIC 9(11)V99
01   NPW TYPE BINARY
01   PRODUCT OCCURS NPW TIMES

     02  CODE                      PIC 9(9)
     02  INDIRECT.COST             PIC 9(11)V99


RECORD NAME IS MONTH.E.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   YEAR                 PIC 99    TYPE IS DATA-BASE-KEY
01   MONTH                PIC 99


RECORD NAME IS MODEL.COST.T
LOCATION MODE VIA MEMCT SET
WITHIN TRUCK

01   MONTH                PIC 99
01   PART.CODE            PIC 9(9)
01   AMOUNT.PROD          PIC 9(7)V999
01   TOTAL.DIRECT.COST PIC 9(11)V99
01   TOTAL.INDIRECT.COST PIC 9(11)V99


RECORD NAME IS PERSONNEL.LIST.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   ID.NO                PIC 9(8)    TYPE IS DATA-BASE-KEY
01   NAME                 PIC X(20)
01   ADDRESS              PIC X(20)
01   BIRTH.DATE           PIC 9(6)
.01  SEX                  PIC A
01   ENTER.DATE           PIC 9(6)
01   INSURANCE.NO         PIC 9(9)
01   TAX.NO               PIC 9(9)
01   NATIONALITY          PIC 9(2)
01   INFIRM.CLASS         PIC 9
01   FL TYPE BINARY
01   FOR.LANG. OCCURS FL TIMES

     02  FOREIGN.LANG              PIC X(10)
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01   FATHER.NAME        PIC X(10)
01   MOTHER.NAME        PIC X(10)
01   BIRTH.PLACE        PIC X(10)
01   RELIGION           PIC X(10)
01   ID.CARD

     02   PROVINCE                  PIC X(10)
     02   TOWN                      PIC X(10)
     02   DISTRICT                  PIC X(10)
     02   QUARTER                   PIC X(10)
     02   HOUSE                     PIC X(6)
     02   BINDING                   PIC 9(6)
     02   PAGE                      PIC 9(6)
     02   CARD.NO                   PIC 9(9)


RECORD NAME IS EDUCATION.T
LOCATION MODE VIA PERSEDT SET
WITHIN TRUCK

01   SCHOOL.NAME        PIC X(10)
01   GRADTN.DATE        PIC 9(6)
01   DIPLOME.NO         PIC 9(5)
01   FIELD              PIC X(10)


RECORD NAME IS REFERENCES.T
LOCATION MODE VIA PERSREFT SET
WITHIN TRUCK

01   NAME               PIC X(20)
01   ADDRESS            PIC X(20)
01   POSITION           PIC X(10)


RECORD NAME IS EXPERIENCE.T
LOCATION MODE VIA PERSEXT SET
WITHIN TRUCK

01   COMPANY.NAME       PIC X(15)
01   COMPANY.ADDRESS    PIC X(20)
01   POSITION           PIC X(10)
01   LAST.SALARY        PIC 9(11)V99


RECORD NAME IS PREVIOUS.WORK.T
LOCATION MODE VIA PERSPWT SET
WITHIN TRUCK

01   DEPT.CODE          PIC 99
01   BEGIN.DATE         PIC 9(6)
01   END.DATE           PIC 9(6)
01   POSITION           PIC X(10)
01   SALARY             PIC 9(11)V99
01   GRADES             PIC 9(5)
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RECORD NAME IS FAMILY.INFO.T
LOCATION MODE VIA PERSFIT SET
WITHIN TRUCK

01  MARITAL.STATUS     PIC AA
01  SPOUSE.NAME        PIC X(10)
01  SPOUSE.WORK        PIC X(10)
01  CHLD TYPE BINARY
01  CHILD OCCURS CHLD TIMES

    02   CHILD.NAME              PIC X(10)
    02   CH.BIRTH.DATE           PIC 9(6)
    02   EDUCATION               PIC 99
    02   :ARITAL.STAT.           PIC 99


RECORD NAME IS ACTUAL.WORK.T
LOCATION MODE VIA PERSAWT SET
WITHIN TRUCK

01  DEPT.CODE          PIC 99
01  ENTER.DATE         PIC 9(6)
01  POSITION           PIC X(10)
01  SALARY             PIC 9(11)V99
01  GRADE              PIC 9(5)
01  NEXT.LEAVE.DATE    PIC 9(6)
01  NEXT.LEAVE.DATE    PIC 9(6)
01  LVE TYPE BINARY
01  LEAVE OCCURS LVE TIMES

    02   PAST.LEAVE.DATE         PIC 9(6)
    02   PAST.RETRN.DATE         PIC 9(6)


RECORD NAME IS PAY.ROLL.T
LOCATION MODE VIA PERSPRT
WITHIN TRUCK

01  MONTH              PIC 99
01  YEAR               PIC 99
01  WORK.DAY.TOTAL     PIC 99
01  ANNUAL.LEAVE.TIME  PIC 999
01  COMPELG.TIME       PIC 999
01  WEEKLY.LEAVE.TIME  PIC 9(5)
01  OTHER.LEAVE.TIME   PIC 9(5)
01  HOLIDAY.OVERTIME   PIC 9(5)
01  NORMAL.OVERTIME    PIC 9(5)
01  OVERTIME.PAYMENT   PIC 9(11)V99
01  UNDERTIME.DECREASE PIC 9(11)V99
01  PREMIUM            PIC 9(11)V99
01  BONUS              PIC 9(11)V99
01  CHLD.PAYMNT        PIC 9(11)V99
01  SENIOR.INDEMN      PIC 9(11)V99
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01   EDUCATION.PAYM      PIC 9(11)V99
01   COMBUST.PAYM        PIC 9(11)V99
01   MILITARY.PAYM       PIC 9(11)V99
01   TRAVEL.EXP          PIC 9(11)V99
01   ENCOURAGE.PAYM      PIC 9(11)V99
01   INCREASE.PREPAYM    PIC 9(11)V99
01   PREPAYMENT          PIC 9(11)V99
01   SPECIAL.DISCOUNT    PIC 9(11)V99
01   GENERAL.DISCOUNT    PIC 9(11)V99
01   EMIGRANT.DISCOUNT   PIC 9(11)V99
01   INFIRM.DISCOUNT     PIC 9(11)V99
01   CHILD.DISCOUNT      PIC 9(11)V99
01   EDUCATION.DISCOUNT  PIC 9(11)V99
01   NO.INSURANCE.DAY    PIC 99
01   TAX.CLASS           PIC 99
01   GROSS.INSUR.AMOUNT  PIC 9(11)V99
01   GROSS.TAX.AMOUNT    PIC 9(11)V99
01   INSURANCE.PREMIUM   PIC 9(11)V99
01   INCOME.TAX          PIC 9(11)V99
01   DEDUCTION OCCURS 8 TIMES

     02   DEDUC.TYPE                 PIC 9(11)V99

01   ROUND.OFF.FACTOR    PIC 999
01   NET.AMOUNT          PIC 9(11)V99


RECORD NAME IS DEPT.STATISTICS.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   DEPT.CODE           PIC 99    TYPE IS DATA-BASE-KEY
01   DEPT.NAME           PIC X(20)
01   NO.EMPLOYEE         PIC 9(5)
01   NO.DIRECT.WORKER    PIC 9(5)
01   NO.INDRCT.WORKER    PIC 9(5)
01   EMPLOYEE.PAYMNTS    PIC 9(11)V99
01   DIRECT.WORK.PAYMNT  PIC 9(11)V99
01   INDRCT.WORK.PAYMNT  PIC 9(11)V99


RECORD NAME IS EXEMPTION.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   EXEMPT.TYPE         PIC 99    TYPE IS DATA-BASE-KEY
01   AMOUNT              PIC 9(11)V99
01   INSUR.EXEMP.RATE    PIC 999
01   TAX.EXEMP.RATE      PIC 999
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RECORD NAME IS TAX.RATE.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   UPPER.LIMIT          PIC 9(11)V99     TYPE IS DATA-BASE-KEY
01   TAX.PERCENTAGE       PIC 99


RECORD NAME IS MONTH.F.T
LOCATION MODE DIRECT MONTH
WITHIN TRUCK

01   MONTH                PIC 99     TYPE IS DATA-BASE-KEY


RECORD NAME IS PLAN.REAL.T
LOCATION MODE VIA MFPRT SET
WITHIN TRUCK

01   WORKER.TYPE          PIC 99
01   PLAN.MAN.HOUR        PIC 9(8)
01   PLAN.MAN             PIC 9(5)
01   REAL.MAN.HOUR        PIC 9(8)
01   REAL.MAN             PIC 9(5)
01   PLAN.SALARY          PIC 9(11)V99
01   REAL.SALARY          PIC 9(11)V99


RECORD NAME IS MACHINE.LIST.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   MACHINE.CODE         PIC 9(9)     TYPE IS DATA-BASE-KEY
01   MACHINE.NAME         PIC X(20)
01   MANUFACT.NAME        PIC X(20)
01   MANUFACT.ADDRESS     PIC X(20)
01   DELIVER.DATE         PIC 9(6)
01   PRICE                PIC 9(11)V99
01   CODE.OF.MANUFT       PIC 9(9)
01   CAPACITY             PIC 9(12)
01   PWT TYPE BINARY
01   POWER OCCURS PWT TIMES

     02   TYPE                      PIC 9(3)
     02   WORK.CONSUMP.             PIC 9(12)
     02   IDLE.CONSUMP              PIC 9(12)

01   GUARANTEE.PERIOD     PIC 9(6)
01   AVRG.LIFE            PIC 9(6)
01   DEPR.RATE            PIC 999
01   USAGE.INFO           PIC X(13)
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RECORD NAME IS MONTH.G.T
LOCATION MODE DIRECT YEAR
WITHIN TRUCK

01  YEAR              PIC 99    TYPE IS DATA-BASE-KEY
01  MONTH             PIC 99


RECORD NAME IS MACH.PLAN.REAL.T
LOCATION MODE DIRECT PLAN.BEGIN.DATE
WITHIN TRUCK

01  PART.CODE         PIC 9(9)
01  ENTER.DATE        PIC 9(6)
01  PLAN.BEGIN.DATE   PIC 9(6)   TYPE IS DATA-BASE-KEY
01  PLAN.END.DATE     PIC 9(6)
01  CONFIRMATION      PIC 9(2)
01  REAL.BEGIN.DATE   PIC 9(6)
01  REAL.END.DATE     PIC 9(6)


RECORD NAME IS FAILURE.T
LOCATION MODE VIA MLFAILT SET
WITHIN TRUCK

01  BREAK.DATE        PIC 9(6)
01  REPAIR.DATE       PIC 9(6)
01  Q TYPE BINARY
01  PC.REPLACED OCCURS Q TIMES

    02  PART.CODE                PIC 9(9)

01  FIRM.REPAIR       PIC X(10)
01  EXPLANATION       PIC X(40)


RECORD NAME IS MAINT.DETAIL.T
LOCATION MODE VIA MLMDTLT SET
WITHIN TRUCK

01  MAINT.DATE        PIC 9(6)
01  Q TYPE BINARY
01  REPLACEMENT OCCURS Q TIMES

    02  PART.CODE     PIC 9(9)

01  FIRM.MAINT        PIC X(10)


RECORD NAME IS MAINT.PLAN.T
LOCATION MODE VIA MLMPLNT SET
WITHIN TRUCK

01  SUBPART.CODE      PIC 9(9)
01  MNT TYPE BINARY
01  SUBPART OCCURS MNT TIMES
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        02  REPAIR.PERIOD            PIC 9(6)
        02  LAST.REPR.DATE           PIC 9(6)
        02  REPAIR.INFO              PIC X(40)


RECORD NAME IS SPARE.PARTS.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01  WAREHOUSE.NO       PIC 99
01  PART.CODE          PIC 9(9)
01  PART.NAME          PIX X(25)
01  UNIT               PIC 99
01  QUANT.REMAIN       PIC 9(7)V999
01  TOTAL.COST         PIC 9(11)V99
01  MIN.STOCK.LEV      PIC 9(7)V999
01  MAX.STOCK.LEV      PIC 9(7)V999
01  R.O.P              PIC 9(7)V999
01  R.O.Q.             PIC 9(7)V999


RECORD NAME IS DEMAND.SUPPLY.T
LOCATION MODE VIA SPDSPLT SET
WITHIN TRUCK

01  DEMAND.DATE        PIC 9(6)
01  DEMAND.QUAN        PIC 9(7)V999
01  DEMAND.DEPT        PIC 99
01  MACH.CODE          PIC 9(9)
01  SUPPLY.DATE        PIC 9(6)
01  SUPPLY.QUAN        PIC 9(7)V999
01  ROLL.NO            PIC 9(8)
01  COST               PIC 9(11)V99


RECORD NAME IS R.N.T.
LOCATION MODE VIA SUPLRNT SET
WITHIN TRUCK

01  PRICE              PIC 9(11)V99
01  QUOTA              PIC 9(7)V999


RECORD NAME IS SUPPLIER.MACH.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01  SUPPLIER.CODE      PIC 9(6)     TYPE IS DATA-BASE-KEY
01  SUPPLIER.NAME      PIC X(20)
01  SUPPLIER.ADDRESS   PIC X(20)
01  INFORMATION        PIC X(40)
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RECORD NAME IS ORDER.SHIP.T
LOCATION MODE CALC PROC-OST USING ORDER.DATE,SUPPLIER.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN TRUCK

01   ORDER.DATE         PIC 9(6)
01   ORDER.QUAN         PIC 9(7)V999
01   SUPPLIER.CODE      PIC 9(6)
01   DELIVERY.DATE      PIC 9(6)
01   DELIVERY.QUAN      PIC 9(7)V999
01   INVOICE.NO         PIC 9(8)
01   PRICE              PIC 9(11)V99


RECORD NAME IS FIXED.ASSETS.T
LOCATION MODE SYSTEM
WITHIN TRUCK

01   CODE               PIC 9(9)    TYPE IS DATA-BASE-KEY
01   NAME               PIC X(20)
01   PURCHASE.DATE      PIC 9(6)
01   INITIAL.PRICE      PIC 9(11)V99
01   DEPR.RATE          PIC 999
01   DEPT.USING         PIC 99




RECORD NAME IS PART.LIST.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   WAREHOUSE.NO       PIC 99
01   PART.CODE          PIC 9(9)    TYPE IS DATA-BASE-KEY
01   PART.NAME          PIC X(25)
01   UNIT               PIC X(2)
01   QUAN.REMAIN        PIC 9(7)V999
01   TOTAL.COST         PIC 9(11)V99
01   MIN.STOCK.LEV      PIC 9(7)V999
01   MAX.STOCK.LEV      PIC 9(7)V999
01   R.O.Q.             PIC 9(7)V999
01   R.O.P.             PIC 9(7)V999
01   LAST.ENTER.DATE    PIC 9(6)
01   QUAN.REMAIN        PIC 9(7)V999
01   COST               PIC 9(11)V99
01   TOTAL.TIME.QUAN    PIC 9(13)V99
01   TOTAL.TIME.MONEY   PIC 9(17)V99
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RECORD NAME IS R.F.P
LOCATION MODE VIA SRFP SET
WITHIN PAINT

01   PRICE              PIC 9(11)V99
01   QUOTA              PIC 9(7)V999


RECORD NAME IS SUPPLIER.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   SUPPLIER.CODE      PIC 9(6)    TYPE IS DATA-BASE-KEY
01   SUPPLIER.NAME      PIC X(20)
01   SUPPLIER.ADDRESS   PIC X(20)
01   PROD.CAPACITY      PIC 9(7)V999
01   INFORMATION        PIC X(40)


RECORD NAME IS AVG.STOCK.MONTH.P
LOCATION MODE CALC PROC-ASMP USING MONTH
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   MONTH              PIC 9(2)
01   AVRG.QUANTITY      PIC 9(7)V999
01   AVRG.COST          PIC 9(11)V99


RECORD NAME IS R.H.P.
LOCATION MODE CALC REP USING MONTH
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   MONTH              PIC 9(2)


RECORD NAME IS DEMAND.P
LOCATION MODE CALC PROC-DEMP USING DEMAND.NO, CUSTOMER.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   DEMAND.NO          PIC 9(5)
01   DEMAND.DATE        PIC 9(6)
01   QUANTITY.ORDER     PIC 9(7)V999
01   CUSTOMER.CODE      PIC 9(6)
01   TOTAL.PRICE        PIC 9(11)V99
01   PROD.PRIORITY      PIC 9(4)
01   B TYPE BINARY
01   SHIPMENT OCCURS B TIMES

     02   DATE                        PIC 9(6)
     02   QUANTITY                    PIC 9(7)V99
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RECORD NAME IS SELL.P
LOCATION MODE CALC PROC-SELLP USING DELIVERY.DATE,
     CUSTOMER.CODE
     DUPLICATES ARE ALLOWED
WITHIN PAINT

01   DELIVERY.DATE      PIC 9(6)
01   DELIVER.QUANTITY   PIC 9(7)V999
01   TOTAL.PRICE        PIC 9(11)V99
01   TOTAL.COST         PIC 9(11)V99
01   CUSTOMER.CODE      PIC 9(6)


RECORD NAME IS ORDER.PLAN.P
LOCATION MODE CALC PROC-OPP USING CONTRACT.NO,
     SUPPLIER.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   QUANTITY.PLAN      PIC 9(5)
01   OP TYPE BINARY
01   ORDER.DETAIL OCCURS OP TIMES

     02   CONTRACT.NO          PIC 9(5)
     02   QUANTITY             PIC 9(7)V999
     02   TOTAL.COST           PIC 9(11)V99
     02   SUPPLIER.CODE        PIC 9(6)


RECORD NAME IS ORDER.REAL.P
LOCATION MODE CALC PROC-ORP USING DATE, SUPPLIER.CODE,
     INVOICE.NO
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   DATE               PIC 9(6)
01   INVOICE.NO         PIC 9(8)
01   SUPPLIER.CODE      PIC 9(6)
01   QUANTITY.DELIVER   PIC 9(7)V999
01   PRICE.TOTAL        PIC 9(11)V99


RECORD NAME IS QC.TEST.P
LOCATION MODE DIRECT TEST.CODE
WITHIN PAINT

01   TEST.CODE          PIC 9(4)     TYPE IS DATA-BASE-KEY
01   TEST.AMOUNT        PIC 9(7)V999
01   RESULT             PIC 9(8)
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RECORD NAME IS TEST.DATA.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   TEST.CODE          PIC 9(4)     TYPE IS DATA-BASE-KEY
01   TEST.NAME          PIC X(20)
01   NORMAL.LIMITS

     02  UPPER          PIC 9(8)
     02  LOWER          PIC 9(8)


RECORD NAME IS SUPPLY.PLAN.P
LOCATION MODE CALC PROC-SUPPLANP USING DEPT.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   DEPT.CODE          PIC 9(2)
01   QUANTITY.PLAN      PIC 9(7)V999
01   MP TYPE BINARY
01   DEMAND OCCURS MP TIMES

     02  QUANTITY                PIC 9(7)V999
     02  DATE                    PIC 9(6)


RECORD NAME IS PRODUCTION.PLAN.P
LOCATION MODE CALC PROC-PRODPLANP USING DEPT.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   QUANTITY.PLAN      PIC 9(7)V999
01   TOTAL.COST         PIC 9(11)V99
01   DEPT.CODE          PIC 9(2)


RECORD NAME IS SUPPLY.REAL.P
LOCATION MODE CALC PROC-SUPREAL USING DATE, DEPT.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   DATE               PIC 9(6)
01   DEPT.CODE          PIC 9(2)
01   ROLL.NO            PIC 9(6)
01   QUANTITY.GIVEN     PIC 9(7)V999
01   TOTAL.COST         PIC 9(11)V99
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RECORD NAME IS PRODUCTION.REAL.P
LOCATION MODE CALC PROC-PRODREALP USING DATE,DEPT.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   DATE                PIC 9(6)
01   ROLL.NO             PIC 9(6)
01   DEPARTMENT.CODE     PIC 9(2)
01   QUANTITY.IN         PIC 9(7)V999
01   TOTAL.COST          PIC 9(11)V99


RECORD NAME IS RECIPE
LOCATION MODE SYSTEM
WITHIN PAINT

01   RECIPE.NO           PIC 9(5)     TYPE IS DATA-BASE-KEY
01   RECIPE.NAME         PIC X(20)
01   RESULT.PRODUCT

     02   CODE                    PIC 9(9)
     02   NAME                    PIC X(25)
     02   UNIT                    PIC X(2)
     02   UNIT.COST               PIC 9(11)V99


RECORD NAME IS PRODUCTION.PHASE
LOCATION MODE VIA RECPP SET
WITHIN PAINT

01   DEPT.CODE           PIC 99
01   PROCESS.CODE        PIC 9(5)
01   PROCESS.NAME        PIC X(25)
01   Q TYPE BINARY
01   RESULT PRODUCT OCCURS Q TIMES

     02   CODE                    PIC 9(9)
     02   UNIT.COST               PIC 9(11)V99

01   DURATION.PROCESS    PIC 9(6)
01   TEST.INDEX          PIC 9
01   INFO.INDEX          PIC 9
01   LOSS.PERCENTAGE     PIC 99


RECORD NAME IS MATERIAL USAGE
LOCATION MODE VIA PPMAT SET
WITHIN PAINT

01   MATERIAL.CODE       PIC 9(9)
01   QUAN.PER.PROD       PIC 9(7)V999
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RECORD NAME IS MANPOWER.USAGE
LOCATION MODE VIA PPMAN SET
WITHIN PAINT

01   MANPOWER.TYPE      PIC 9999
01   UNIT.PROD.TIME     PIC 9(6)
01   NO.OF.MAN          PIC 9(6)
01   UNIT.TIME.COST     PIC 9(11)V99


RECORD NAME IS MACHINE.USAGE
LOCATION MODE VIA PPMAN SET
WITHIN PAINT

01   MANPOWER.TYPE      PIC 9999
01   UNIT.PROD.TIME     PIC 9(6)
01   NO.OF.MAN          PIC 9(6)
01   UNIT.TIME.COST     PIC 9(11)V99


RECORD NAME IS MACHINE.USAGE
LOCATION MODE VIA PPMAC SET
WITHIN PAINT

01   MACHINE.CODE       PIC 9(5)
01   TIME.PER.PROD      PIC 9(6)
01   UNIT.TIME.COST     PIC 9(11)V99
01   TM TYPE BINARY
01   ENERGY OCCURS TM TIMES

     02   TYPE                   PIC 999
     02   USAGE.PER.PROD         PIC 9(6)
     02   UNIT.COST              PIC 9(11)V99


RECORD NAME IS Q.CONTROL
LOCATION MODE DIRECT TEST.CODE
WITHIN PAINT

01   TEST.CODE          PIC 9999    TYPE IS DATA-BASE-KEY
01   TEST.NAME          PIC X(20)
01   NORMAL.LIMITS

     02   UPPER                  PIC 9(8)
     02   LOWER                  PIC 9(8)


RECORD NAME IS MONTH.X
LOCATION MODE CALC PROC-MX USING YEAR, MONTH
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   YEAR               PIC 99
01   MONTH              PIC 99
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RECORD NAME IS QC.RESULTS
LOCATION MODE DIRECT JOB.NO
WITHIN PAINT

01   JOB.NO            PIC 9(5)    TYPE IS DATA-BASE-KEY
01   SAMPLE.QUANT.     PIC 9(7)V999
01   ACTUAL.RESULT     PIC 9(8)
01   DATE              PIC 9(6)
01   HOUR              PIC 9999


RECORD NAME IS QC.INFO
LOCATION MODE VIA QCQCI SET
WITHIN PAINT

01   UPPER.LIMIT       PIC 9(8)
01   LOWER.LIMIT       PIC 9(8)
01   INFO.PROCESS.CODE PIC 9(5)
01   INFORMATION       PIC X(20)
01   NI TYPE BINARY
01   MATL.ADDED OCCURS NIT TIMES

     02   CODE                     PIC 9(9)
     02   QUANTITY                 PIC 9(7)V999


RECORD NAME IS QC.STATISTICS
LOCATION MODE SYSTEM
WITHIN PAINT

01   TEST.CODE         PIC 9(4)    TYPE IS DATA-BASE-KEY
01   MONTH             PIC 99
01   TOTAL.QUAN.TESTED PIC 9(7)V999
01   ACTUAL.RESULTS

     02   MAX                      PIC 9(8)
     02   AVERAGE                  PIC 9(8)
     02   MIN                      PIC 9(8)


RECORD NAME IS W.I.P
LOCATION MODE VIA PPWIP SET
WITHIN PAINT

01   JOB.NO            PIC 9(5)
01   PRODUCT.CODE      PIC 9(9)
01   QUANTITY          PIC 9(7)V999
01   CUSTOMER.CODE     PIC 9(6)
01   ACTUAL.COSTS

     02   MATERIAL                 PIC 9(11)V99
     02   MANPOWER                 PIC 9(11)V99
     02   ENERGY                   PIC 9(11)V99
     02   MACHINE                  PIC 9(11)V99
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RECORD NAME IS IMPORT.LICENSE.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   FILE.NO             PIC 9(10)     TYPE IS DATA-BASE-KEY
01   CERTIF.DATE         PIC 9(6)
01   CERTIF.NO           PIC 9(15)
01   IMPORT.TYPE         PIC 9(7)
01   CURRENCY.TYPE       PIC X(5)
01   MONETRY.VALUE       PIC 9(11)V99
01   DEPOSIT.PERCENT     PIC 99
01   DEPOSIT.VALUE       PIC 9(11)V99
01   DEPOSIT.DATE        PIC 9(6)
01   DEPOSIT.BANK        PIC X(10)
01   LICENSE.DATE        PIC 9(6)
01   LICENSE.NO          PIC 9(15)
01   VALIDITY            PIC 9(6)
01   BEGIN.DATE          PIC 9(6)
01   EXTRA.PERIOD        PIC 9(6)
01   IMPORT.BANK.REF     PIC 9(15)
01   IMPORT.BANK.CODE    PIC 9(10)


RECORD NAME IS LICENSE.DETAIL.P
LOCATION MODE DIRECT MATL.CODE
WITHIN PAINT

01   MATL.CODE           PIC 9(9)      TYPE IS DATA-BASE-KEY
01   MATL.NAME           PIC X(25)
01   QUOTA.QUAN          PIC 9(7)V999
01   QUOTA.VALUE         PIC 9(11)V99


RECORD NAME IS IMPORT.PREP.P
LOCATION MODE VIA LDIPP SET
WITHIN PAINT

01   PROFORM.INVOICE

     02   NO                      PIC 9(8)
     02   DATE                    PIC 9(6)
     02   FIRM.CODE               PIC 9(6)
     02   QUANTITY                PIC 9(7)V999
     02   VALUE                   PIC 9(11)V99

01   CORRESPND.BANK      PIC X(10)
01   INTERMDT.BANK       PIC X(10)
01   LETTER.CREDIT

     02   OPEN.DATE               PIC 9(6)
     02   VALIDITY                PIC 9(6)
     02   AMOUNT                  PIC 9(11)V99
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01   COUNTRY                PIC X(10)
01   EXPLANATION            PIC X(40)
01   TARIF.NO               PIC 9(15)
01   TAX.PERCENT            PIC 99


RECORD NAME IS IMPORT.REAL.P
LOCATION MODE VIA LDIRP SET
WITHIN PAINT

01   IMPORT.DATE            PIC 9(6)
01   EXCHANGE.RATE          PIC 9(5)
01   CUSTM.ARRIV.DATE       PIC 9(6)
01   TRANSP.TYPE            PIC X(10)
01   TRANSP.FIRM            PIC X(10)
01   INSURANCE.COST         PIC 9(11)V99
01   FREIGHT.COST           PIC 9(11)V99
01   QUANTITY               PIC 9(7)V999
01   TOTAL.PRICE            PIC 9(11)V99
01   TRANSFER

     02   DATE                        PIC 9(6)
     02   NO                          PIC 9(15)
     02   EXCHANGE.RATE               PIC 9(5)

01   INSURANCE.POLICY

     02   FIRM                        PIC X(10)
     02   DATE                        PIC 9(6)
     02   NO                          PIC 9(15)

01   REGISTRATION

     02   DATE                        PIC 9(6)
     02   NO                          PIC 9(15)
     02   EXCHANGE.RATE               PIC 9(5)

01   CUSTOM.TAX

     02   PAYM.DATE                   PIC 9(6)
     02   PAYM.NO                     PIC 9(15)
     02   AMOUNT                      PIC 9(11)V99

01   EXPLANATION            PIC X(40)
01   INVOICE.NO             PIC 9(8)


RECORD NAME CERTF.DEPOSIT.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   BANK.CODE              PIC 9(10)    TYPE IS DATA-BASE-KEY
01   VALUE                  PIC 9(11)V99
01   CURRENCY.TYPE          PIC X(5)
01   VALIDITY               PIC 9(6)
01   BEGIN.DATE             PIC 9(6)
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RECORD NAME IS PL.FORMAT.P
LOCATION MODE VIA PRPFP SET
WITHIN PAINT

01  LINE.NO          PIC 99
01  ASST.LIABLTY     PIC A
01  TITLE            PIC X(35)
01  UNDERLINE        PIC A
01  COLUMN.NO        PIC 999
01  AMOUNT           PIC 9(11)V99


RECORD NAME IS PL.ACCOUNT.P
LOCATION MODE DIRECT LINE.NO
WITHIN PAINT

01  LINE.NO          PIC 99    TYPE IS DATA-BASE-KEY
01  TITLE            PIC X(35)
01  COLUMN.NO        PIC 999
01  AMOUNT           PIC 9(11)V99


RECORD NAME IS BUDGET.DATE.P
LOCATION MODE SYSTEM
WITHIN PAINT

01  YEAR             PIC 99    TYPE IS DATA-BASE-KEY
01  MONTH            PIC 99


RECORD NAME IS BUDGET.TOTAL.P
LOCATION MODE DIRECT ACCOUNT.NO
WITHIN PAINT

01  ACCOUNT.NO       PIC 9(6)    TYPE IS DATA-BASE-KEY
01  ACCOUNT.NAME     PIC X(20)
01  BUDGET.AMOUNT    PIC 9(11)V99
01  REAL.AMOUNT      PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.I.P
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
    DUPLICATES ARE ALLOWED
WITHIN PAINT

01  LEVEL.NO         PIC 9999
01  BUDAC TYPE BINARY
01  ACCOUNT OCCURS BUDAC TIMES

    02  ACCOUNT.NO           PIC 9(6)
    02  ACCOUNT.NAME         PIC X(20)
    02  BUDGET.AMOUNT        PIC 9(11)V99
    02  REAL.AMOUNT          PIC 9(11)V99
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RECORD NAME IS BUDGET.LEVEL.Z.P
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
     DUPLICATES ARE ALLOWED
WITHIN PAINT

01   LEVEL.NO            PIC 9999
01   BUDAC TYPE BINARY
01   ACCOUNT OCCURS BUDAC TIMES

     02   ACCOUNT.NO              PIC 9(6)
     02   ACCOUNT.NAME            PIC X(20)
     02   BUDGET.AMOUNT           PIC 9(11)V99
     02   REAL.AMOUNT             PIC 9(11(V99


RECORD NAME IS CREDIT.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   CERTIFCT.NO     PIC 9(15)     TYPE IS DATA-BASE-KEY
01   RECEIV.DATE     PIC 9(6)
01   CREDIT.TYPE     PIC X(8)
01   EXPLANATION     PIC X(40)
01   LIMIT.VALUE     PIC 9(11)V99
01   VALIDITY        PIC 9(6)
01   CURRENCY.TYPE   PIC X(5)
01   REF.NO          PIC 9(15)
01   DUR TYPE BINARY
01   INTEREST OCCURS DUR TIMES

     02   INTEREST.RATE           PIC 99
     02   INTRST.RATE.DATE        PIC 9(6)


RECORD NAME IS CREDIT.GET.P
LOCATION MODE DIRECT DATE
WITHIN PAINT

01   DATE            PIC 9(6)     TYPE IS DATA-BASE-KEY
01   AMOUNT          PIC 9(11)V99
01   EXPLANATION     PIC X(40)


RECORD NAME IS CREDIT.PAY.P
LOCATION MODE DIRECT DATE
WITHIN PAINT

01   DATE            PIC 9(6)     TYPE IS DATA-BASE-KEY
01   AMOUNT          PIC 9(11)V99
01   EXPLANATION     PIC X(40)
```

```
RECORD NAME IS PAYABLES.P
LOCATION MODE DIRECT TYPE.PAYABLE
WITHIN PAINT

01  TYPE.PAYABLE        PIC 999     TYPE IS DATA-BASE-KEY
01  CRDITOR             PIC X(10)
01  AMOUNT              PIC 9(11)V99
01  DATE.PLAN           PIC 9(6)
01  DATE.DUE            PIC 9(6)
01  DATE.REAL           PIC 9(6)
01  REFERENCE           PIC X(15)


RECORD NAME IS RECEIVABLES.P
LOCATION MODE DIRECT TYPE.RECEIV
WITHIN PAINT

01  TYPE.RECEIV         PIC 9999     TYPE IS DATA-BASE-KEY
01  DEBITOR             PIC X(10)
01  AMOUNT              PIC 9(11)V99
01  DATE.PLAN           PIC 9(6)
01  DATE.DUE            PIC 9(6)
01  DATE.REAL           PIC 9(6)
01  REFERENCE           PIC X(15)


RECORD NAME IS BOND.DETAIL.P
LOCATION MODE CALC PROC-BDH USING ENDORSE.DATE, RECEIV.DATE
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01  RECEIV.DATE         PIC 9(6)
01  DEBITOR             PIC X(10)
01  ENDORS.FROM         PIC X(10)
01  ENDORS.TO           PIC X(10)
01  ENDORSE.DATE        PIC 9(6)
01  ROLL.NO             PIC 9(15)
01  DEBIT.PLACE         PIC X(12)
01  ENDORSE.REF         PIC 9(15)
01  BANK.REF.NO         PIC 9(15)
01  USAGE.TYPE          PIC X(2)


RECORD NAME IS LEDGER.ACCNT.P
LOCATION MODE SYSTEM
WITHIN PAINT

01  ACCOUNT.NO          PIC 999 TYPE IS DATA-BASE-KEY
01  ACCOUNT.NAME        PIC X(20)
01  DRCR                PIC A
01  REMAINDER           PIC 9(11)V99
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RECORD NAME IS SUBSDR.ACCNT.P
LOCATION MODE CALC PROC-ACHP USING ACCOUNT.NO
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   ACCOUNT.NO        PIC 999
01   ACCOUNT.NAME      PIC X(20)
01   DRCR              PIC A
01   REMAINDER         PIC 9(11)V99


RECORD NAME IS MONTH.H.P
LOCATION MODE CALC PROC-ACHP USING YEAR
     DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   YEAR              PIC 99
01   MONTH             PIC 99


RECORD NAME IS JOURNAL.P
LOCATION MODE CALC PROC-ACHP USING DATE
     DUPLICATES ARE ALLOWED
WITHIN PAINT

01   DATE              PIC 9(6)
01   TRANSACT.NO       PIC 9(6)
01   DRCR              PIC A
01   AMOUNT            PIC 9(11)V99
01   EXPLANATION       PIC X(40)


RECORD NAME IS BANKS.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   BANK.CODE         PIC 9(10)     TYPE IS DATA-BASE-KEY
01   BANK.NAME         PIC X(20)
01   BRANCH.NAME       PIC X(20)
01   BANK.ACCNT.NO     PIC 9(15)
01   BACC TYPE BINARY
01   ACCNT OCCURS BACC TIMES

     02   ACCOUNT.TYPE           PIC 9(15)
     02   REMAINDER              PIC 9(11)V99
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RECORD NAME IS DEPT.DATA.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   DEPT.CODE          PIC 99    TYPE IS DATA-BASE-KEY
01   DEPT.NAME          PIC X(20)
01   USAGE.PERCENTAGES

     02   ELECTRICITY   :          PIC 99
     02   FUEL                     PIC 99
     02   WATER                    PIC 99

01   NPW TYPE BINARY
01   PRODUCT OCCURS NPW TIMES

     02   CODE                     PIC 9(9)
     02   PROD.TIME                PIC 9(6)


RECORD NAME IS DEPT.COST.P
LOCATION MODE VIA DDDCP SET
WITHIN PAINT

01   YEAR           PIC 99
01   MONTH          PIC 99
01   DEPRECIATION   PIC 9(11)V99
01   OVERHEAD       PIC 9(11)V99
01   GENERAL.COST   PIC 9(11)V99
01   NPW TYPE BINARY
01   PRODUCT OCCURS NPW TIMES

     02   CODE                    PIC 9(9)
     02   INDIRECT.COST           PIC 9(11)V99


RECORD NAME IS MONTH.E.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   YEAR               PIC 99    TYPE IS DATA-BASE-KEY
01   MONTH              PIC 99


RECORD NAME IS MODEL.COST.P
LOCATION MODE VIA MEMCP SET
WITHIN PAINT

01   MONTH          PIC 99
01   PART.CODE      PIC 9(9)
01   AMOUNT.PROD    PIC 9(7)V999
01   TOTAL.DIRECT.COST PIC 9(11)V99
01   TOTAL.INDIRECT.COST PIC 9(11)V99
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RECORD NAME IS PERSONNEL.LIST.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   ID.NO              PIC 9(8)    TYPE IS DATA-BASE-KEY
01   NAME               PIC X(20)
01   ADDRESS            PIC X(20)
01   BIRTH.DATE         PIC 9(6)
01   SEX                PIC A
01   ENTER.DATE         PIC 9(6)
01   INSURANCE.NO       PIC 9(9)
01   TAX.NO             PIC 9(9)
01   NATIONALITY        PIC 9(2)
01   INFIRM.CLASS       PIC 9
01   FL TYPE BINARY
01   FOR.LANG OCCURS FL TIMES

     02   FOREIGN.LANG            PIC X(10)

01   FATHER.NAME        PIC X(10)
01   MOTHER.NAME        PIC X(10)
01   BIRTH.PLACE        PIC X(10)
01   RELIGION           PIC X(10)
01   ID.CARD

     02   PROVINCE                PIC X(10)
     02   TOWN                    PIC X(10)
     02   DISTRICT                PIC X(10)
     02   QUARTER                 PIC X(10)
     02   HOUSE                   PIC X(6)
     02   BINDING                 PIC 9(6)
     02   PAGE                    PIC 9(6)
     02   CARD.NO                 PIC 9(9)


RECORD NAME IS EDUCATION.P
LOCATION MODE VIA PERSEDP SET
WITHIN PAINT

01   SCHOOL.NAME        PIC X(10)
01   GRADTN.DATE        PIC 9(6)
01   DIPLOME.NO         PIC 9(5)
01   FIELD              PIC X(10)


RECORD NAME IS REFERENCES.P
LOCATION MODE VIA PERSREFP SET
WITHIN PAINT

01   NAME               PIC X(20)
01   ADDRESS            PIC X(20)
01   POSITION           PIC X(10)
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RECORD NAME IS EXPERIENCE.P
LOCATION MODE VIA PERSEXP SET
WITHIN PAINT

01   COMPANY.NAME        PIC X(15)
01   COMPANY.ADDRESS     PIC X(20)
01   POSITION            PIC X(10)
01   LAST.SALARY         PIC 9(11)V99


RECORD NAME IS PREVIOUS.WORK.P
LOCATION MODE VIA PERSPWP SET
WITHIN PAINT

01   DEPT.CODE           PIC 99
01   BEGIN.DATE          PIC 9(6)
01   END.DATE            PIC 9(6)
01   POSITION            PIC X(10)
01   SALARY              PIC 9(11)V99
01   GRADES              PIC 9(5)


RECORD NAME IS FAMILY.INFO.P
LOCATION MODE VIA PERSFIP SET
WITHIN PAINT

01   MARITAL.STATUS      PIC AA
01   SPOUSE.NAME         PIC X(10)
01   SPOUSE.WORK         PIC X(10)
01   CHLD TYPE BINARY
01   CHILD OCCURS CHLD TIMES

     02   CHILD.NAME              PIC X(10)
     02   CH.BIRTH.DATE           PIC 9(6)
     02   EDUCATION               PIC 99
     02   MARITAL.STAT.           PIC 99


RECORD NAME IS ACTUAL.WORK.P
LOCATION MODE VIA PERSAWP SET
WITHIN PAINT

01   DEPT.CODE           PIC 99
01   ENTER.DATE          PIC 9(6)
01   POSITION            PIC X(10)
01   SALARY              PIC 9(11)V99
01   GRADE               PIC 9(5)
01   NEXT.LEAVE.DATE     PIC 9(6)
01   NEXT.LEAVE.DATE     PIC 9(6)
01   LVE TYPE BINARY
01   LEAVE OCCURS LVE TIMES

     02   PAST.LEAVE.DATE         PIC 9(6)
     02   PAST.RETRN.DATE         PIC 9(6)
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RECORD NAME IS PAY.ROLL.P
LOCATION MODE VIA PERSPRP
WITHIN PAINT

01   MONTH               PIC 99
01   YEAR                PIC 99
01   WORK.DAY.TOTAL      PIC 99
01   ANNUAL.LEAVE.TIME   PIC 999
01   COMPELG.TIME        PIC 999
01   WEEKLY.LEAVE.TIME   PIC 9(5)
01   OTHER.LEAVE.TIME    PIC 9(5)
01   HOLIDAY.OVERTIME    PIC 9(5)
01   NORMAL.OVERTIME     PIC 9(5)
01   OVERTIME.PAYMENT    PIC 9(11)V99
01   UNDERTIME.DECREASE  PIC 9(11)V99
01   PREMIUM             PIC 9(11)V99
01   BONUS               PIC 9(11)V99
01   CHLD.PAYMNT         PIC 9(11)V99
01   SENIOR.INDEMN       PIC 9(11)V99
01   EDUCATION.PAYM      PIC 9(11)V99
01   COMBUST.PAYM        PIC 9(11)V99
01   MILITARY.PAYM       PIC 9(11)V99
01   MILITARY.PAYM       PIC 9(11)V99
01   TRAVEL.EXP          PIC 9(11)V99
01   ENCOURAGE.PAYM      PIC 9(11)V99
01   INCREASE.PREPAYM    PIC 9(11)V99
01   PREPAYMENT          PIC 9(11)V99
01   SPECIAL.DISCOUNT    PIC 9(11)V99
01   GENERAL.DISCOUNT    PIC 9(11)V99
01   EMIGRANT.DISCOUNT   PIC 9(11)V99
01   INFIRM.DISCOUNT     PIC 9(11)V99
01   CHILD.DISCOUNT      PIC 9(11)V99
01   EDUCATION.DISCOUNT  PIC 9(11)V99
01   NO.INSURANCE.DAY    PIC 99
01   TAX.CLASS           PIC 99
01   GROSS.INSUR.AMOUNT  PIC 9(11)V99
01   GROSS.TAX.AMOUNT    PIC 9(11)V99
01   INSURANCE.PREMIUM   PIC 9(11)V99
01   INCOME.TAX          PIC 9(11)V99
01   DEDUCTION OCCURS 8 TIMES

     02   DEDUC.TYPE                 PIC 9(11)V99

01   ROUND.OFF.FACTOR    PIC 999
01   NET.AMOUNT          PIC 9(11)V99
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RECORD NAME IS DEPT.STATISTICS.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   DEPT.CODE          PIC 99    TYPE IS DATA-BASE-KEY
01   DEPT.NAME          PIC X(20)
01   NO.EMPLOYEE        PIC 9(5)
01   NO.DIRECT.WORKER   PIC 9(5)
01   NO.INDRCT.WORKER   PIC 9(5)
01   EMPLOYEE.PAYMNTS   PIC 9(11)V99
01   DIRECT.WORK.PAYMNT PIC 9(11)V99
01   INDRCT.WORK.PAYMNT PIC 9(11)V99


RECORD NAME IS EXEMPTION.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   EXEMPT.TYPE        PIC 99    TYPE IS DATA-BASE-KEY
01   AMOUNT             PIC 9(11)V99
01   INSUR.EXEMP.RATE   PIC 999
01   TAX.EXEMP.RATE     PIC 999


RECORD NAME IS TAX.RATE.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   UPPER.LIMIT        PIC 9(11)V99    TYPE IS DATA-BASE-KEY
01   TAX.PERCENTAGE     PIC 99


RECORD NAME IS MONTH.F.P
LOCATION MODE DIRECT MONTH
WITHIN PAINT

01   MONTH              PIC 99    TYPE IS DATA-BASE-KEY


RECORD NAME IS PLAN.REAL.P
LOCATION MODE VIA MFPRP SET
WITHIN PAINT

01   WORKER.TYPE        PIC 99
01   PLAN.MAN.HOUR      PIC 9(8)
01   PLAN.MAN           PIC 9(5)
01   REAL.MAN.HOUR      PIC 9(8)
01   REAL.MAN           PIC 9(5)
01   PLAN.SALARY        PIC 9(11)V99
01   REAL.SALARY        PIC 9(11)V99
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RECORD NAME IS MACHINE.LIST.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   MACHINE.CODE        PIC 9(9)      TYPE IS DATA-BASE-KEY
01   MACHINE.NAME        PIC X(20)
01   MANUFACT.NAME       PIC X(20)
01   MANUFACT.ADDRESS    PIC X(20)
01   DELIVER.DATE        PIC 9(6)
01   PRICE               PIC 9(11)V99
01   CODE.OF.MANUFT      PIC 9(9)
01   CAPACITY            PIC 9(12)
01   PWT TYPE BINARY
01   POWER OCCURS PWT TIMES

     02   TYPE                     PIC 9(3)
     02   WORK.CONSUMP             PIC 9(12)
     02   IDLE.CONSUMP             PIC 9(12)

01   GUARANTEE.PERIOD    PIC 9(6)
01   AVRG.LIFE           PIC 9(6)
01   DEPR.RATE           PIC 999
01   USAGE.INFO          PIC X(13)


RECORD NAME IS MONTH.G.P
LOCATION MODE DIRECT YEAR
WITHIN PAINT

01   YEAR                PIC 99      TYPE IS DATA-BASE-KEY
01   MONTH               PIC 00


RECORD NAME IS MACH.PLAN.REAL.P
LOCATION MODE DIRECT PLAN.BEGIN.DATE
WITHIN PAINT

01   PART.CODE           PIC 9(9)
01   ENTER.DATE          PIC 9(6)
01   PLAN.BEGIN.DATE     PIC 9(6)      TYPE IS DATA-BASE-KEY
01   PLAN.END.DATE       PIC 9(6)
01   CONFIRMATION        PIC 9(2)
01   REAL.BEGIN.DATE     PIC 9(6)
01   REAL.END.DATE       PIC 9(6)
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RECORD NAME IS FAILURE.P
LOCATION MODE VIA MLFAILP SET
WITHIN PAINT

01   BREAK.DATE          PIC 9(6)
01   REPAIR.DATE         PIC 9(6)
01   Q TYPE BINARY
01   PC.REPLACED OCCURS Q TIMES

     02   PART.CODE                 PIC 9(9)

01   FIRM.REPAIR         PIC X(10)
01   EXPLANATION         PIC X(40)


RECORD NAME IS MAINT.DETAIL.P
LOCATION MODE VIA MLMDTLP SET
WITHIN PAINT

01   MAINT.DATE          PIC 9(6)
01   Q TYPE BINARY
01   REPLACEMENT OCCURS Q TIMES

     02   PART.CODE                 PIC 9(9)

01   FIRM.MAINT          PIC X(10)


RECORD NAME IS MAINT.PLAN.P
LOCATION MODE VIA MLMPLNP SET
WITHIN PAINT

01   SUBPART.CODE        PIC 9(9)
01   MNT TYPE BINARY
01   SUBPART OCCURS MNT TIMES

     02   REPAIR.PERIOD          PIC 9(6)
     02   LAST.REPR.DATE         PIC 9(6)
     02   REPAIR.INFO            PIC X(40)


RECORD NAME IS SPARE.PARTS.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   WAREHOUSE.NO        PIC 99
01   PART.CODE           PIC 9(9)    TYPE IS DATA-BASE-KEY
01   PART.NAME           PIC X(25)
01   UNIT                PIC 99
01   QUANT.REMAIN        PIC 9(7)V999
01   TOTAL.COST          PIC 9(11)V99
01   MIN.STOCK.LEV       PIC 9(7)V999
01   MAX.STOCK.LEV       PIC 9(7)V999
01   R.O.P               PIC 9(7)V999
01   R.O.Q.              PIC 9(7)V999
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RECORD NAME IS DEMAND.SUPPLY.P
LOCATION MODE VIA SPDSPLP SET
WITHIN PAINT

01   DEMAND.DATE          PIC 9(6)
01   DEMAND.QUAN          PIC 9(7)V999
01   DEMAND.DEPT          PIC 99
01   MACH.CODE            PIC 9(9)
01   SUPPLY.DATE          PIC 9(6)
01   SUPPLY.QUAN          PIC 9(7)V999
01   ROLL.NO              PIC 9(8)
01   COST                 PIC 9(11)V99


RECORD NAME IS R.N.P
LOCATION MODE VIA SUPLRNP SET
WITHIN PAINT

01   PRICE                PIC 9(11)V99
01   QUOTA                PIC 9(7)V999


RECORD NAME IS SUPPLIER.MACH.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   SUPPLIER.CODE        PIC 9(6)     TYPE IS DATA-BASE-KEY
01   SUPPLIER.NAME        PIC X(20)
01   SUPPLIER.ADDRESS     PIC X(20)
01   INFORMATION          PIC X(40)


RECORD NAME IS ORDER.SHIP.P
LOCATION MODE CALC PROC-OSP USING ORDER.DATE,
      SUPPLIER.CODE
      DUPLICATES ARE NOT ALLOWED
WITHIN PAINT

01   ORDER.DATE           PIC 9(6)
01   ORDER.QUAN           PIC 9(7)V999
01   SUPPLIER.CODE        PIC 9(6)
.01   DELIVERY.DATE        PIC 9(6)
01   DELIVERY.QUAN        PIC 9(7)V999
01   INVOICE.NO           PIC 9(8)
01   PRICE                PIC 9(11)V99
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RECORD NAME IS FIXED.ASSETS.P
LOCATION MODE SYSTEM
WITHIN PAINT

01   CODE              PIC 9(9)     TYPE IS DATA-BASE-KEY
01   NAME              PIC X(20)
01   PURCHASE.DATE     PIC 9(6)
01   INITIAL.PRICE     PIC 9(11)V99
01   DEPR.RATE         PIC 999
01   DEPT.USING        PIC 99




RECORD NAME IS WAREHOUSE.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   WAREHOUSE.NO      PIC 99    TYPE IS DATA-BASE-KEY
01   WAREHOUSE.NAME    PIC X(15)


RECORD NAME IS PART.ID.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   PART.CODE         PIC 9(9)     TYPE IS DATA-BASE-KEY
01   PART.NAME         PIC X(25)
01   PART.UNIT         PIC X(2)



RECORD NAME IS REMAINDER.M
LOCATION MODE VIA PIRM SET
WITHIN MARKETING

01   QUANTITY          PIC 9(7)V999
01   TOTAL.PRICE       PIC 9(11)V99
01   MIN.STOCK.LEV     PIC 9(7)V999
01   MAX.STOCK.LEV     PIC 9(7)V999
01   R.O.Q.            PIC 9(7)V999
01   R.O.P.            PIC 9(7)V999


RECORD NAME IS R.L.M
LOCATION MODE VIA SRLM SET
WITHIN MARKETING

01   PRICE             PIC 9(11)V99
01   QUOTA             PIC 9(7)V999
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RECORD NAME IS SUPPLIER.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   SUPPLIER.CODE     PIC 9(6)     TYPE IS DATA-BASE-KEY
01   SUPPLIER.NAME     PIC X(20)
01   SUPPLIER.ADDRESS  PIC X(20)
01   PRODUCTION.CAPACITY PIC 9(7)V99
01   INFORMATION       PIC X(40)


RECORD NAME IS DEMAND.P
LOCATION MODE CALC PROC-DEM USING CONTRACT.NO,
     SUPPLIER.CODE
WITHIN MARKETING

01   CONTRACT.NO      PIC 9(5)
01   PART.CODE        PIC 9(9)
01   SUPPLIER.CODE    PIC 9(6)
01   QUANTITY.ORDER   PIC 9(7)V999
01   TOTAL.PRICE      PIC 9(11)V99
01   K TYPE BINARY
01   DELIVERY OCCURS K TIMES

     02   DATE                   PIC 9(6)
     02   QUANTITY               PIC 9(7)V99


RECORD NAME IS MONTH.A
LOCATION MODE VIA PLMA SET
WITHIN MARKETING

01  YEAR            PIC 99
01  MONTH           PIC 99


RECORD NAME IS DELIVERY.P
LOCATION MODE CALC PROC-DEL USING SUPPLIER.CODE,
     DATE,INVOICE.NO
WITHIN MARKETING

01   SUPPLIER.CODE    PIC 9(6)
01   DATE             PIC 9(6)
01   QUANTITY         PIC 9(7)V999
01   PRICE            PIC 9(11)V99
01   INVOICE.NO       PIC 9(8)
01   BACK.INFO        PIC 9(9)
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RECORD NAME IS OUT.PACK.P
LOCATION MODE DIRECT MATERIAL.CODE
WITHIN MARKETING

01  DATE              PIC 9(6)
01  MATERIAL.CODE     PIC 9(9)     TYPE IS DATA-BASE-KEY
01  QUANTITY          PIC 9(7)V999
01  TOTAL.COST        PIC 9(11)V99


RECORD NAME IS IN.PACK.P
LOCATION MODE DIRECT MATERIAL.CODE
WITHIN MARKETING

01  DATE              PIC 9(6)
01  MATERIAL.CODE     PIC 9(9)     TYPE IS DATA-BASE-KEY
01  TOTAL.COST        PIC 9(11)V99
01  QUANTITY          PIC 9(7)V999
01  PACK.MATL.INFO

    02  CODE                      PIC 9(9)
    02  USE.PER.PROD              PIC 9(7)V999
    02  UNIT.COST                 PIC 9(11)V99


RECORD NAME IS CUSTMR.DOMESTIC
LOCATION MODE SYSTEM
WITHIN MARKETING

01  CUSTOMER.CODE     PIC 9(6)     TYPE IS DATA-BASE-KEY
01  CUSTOMER.NAME     PIC X(20)
01  ADDRESS           PIC X(20)
01  QUOTA             PIC 9(10)
01  INFORMATION       PIC X(40)


RECORD NAME IS ORDER.CUSTOMER
LOCATION MODE CALC PROC-ORCUS USING ORDER.NO, PART.CODE
    DUPLICATES ARE NOT ALLOWED
WITHIN MARKETING

01  ORDER.NO          PIC 9(6)
01  PART.CODE         PIC 9(9)
01  TOTAL.QUANTITY    PIC 9(7)V999
01  TOTAL.PRICE       PIC 9(11)V99
01  PRIORITY          PIC 9999
01  K TYPE BINARY
01  DELIVERY.PLAN OCCURS K TIMES

    02  QUANTITY                  PIC 9(7)V999
    02  PRICE                     PIC 9(11)V99
    02  DATE                      PIC 9(6)
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RECORD NAME IS MONTH.C
LOCATION MODE DIRECT YEAR
WITHIN MARKETING

01  YEAR                PIC 99     TYPE IS DATA-BASE-KEY
01  MONTH               PIC 99


RECORD NAME IS DOMESTIC.SELLS
LOCATION MODE CALC PROC-DOMSEL USING DELIVERY.DATE,
     PART.CODE, INVOICE.NO
WITHIN MARKETING

01  PART.CODE           PIC 9(9)
01  DELIVERY.DATE       PIC 9(6)
01  QUANTITY            PIC 9(7)V999
01  PRICE               PIC 9(11)V99
01  MATL.ORIGIN         PIC 99
01  DELIVERY.PLACE      PIC X(10)
01  PAYMENT.TYPE        PIC AA
01  INVOICE.NO          PIC 9(8)
01  INVOICE.DATE        PIC 9(6)
01  BACK                PIC 9(9)
01  DISCOUNT            PIC 9(11)V99


RECORD NAME IS MONTH.D
LOCATION MODE DIRECT YEAR
WITHIN MARKETING

01  YEAR                PIC 99     TYPE IS DIRECT.YEAR
01  MONTH               PIC 99


RECORD NAME IS CUSTOMER.EXPORT
LOCATION MODE SYSTEM
WITHIN MARKETING

01  CUSTOMER.CODE       PIC 9(6)     TYPE IS DATA-BASE-KEY
01  CUSTOMER.NAME       PIC X(20)
01  ADDRESS             PIC X(20)
01  QUOTA               PIC 9(7)V999
01  INFORMATION         PIC X(40)
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RECORD NAME IS ORDER.EXPORT
LOCATION MODE CALC PROC-OREX USING PART.CODE, ORDER.NO
     DUPLICATES ARE NOT ALLOWED
WITHIN MARKETING

01   PART.CODE          PIC 9(9)
01   ORDER.NO           PIC 9(6)
01   TOTAL.QUANTITY     PIC 9(7)V999
01   TOTAL.PRICE        PIC 9(11)V99
01   PRIORITY           PIC 9999
01   K TYPE BINARY
01   DELIVERY.PLAN OCCURS K TIMES

     02   QUANTITY               PIC 9(7)V999
     02   PRICE                  PIC 9(11)V99
     02   DATE                   PIC 9(6)
     02   CONFIRMATION           PIC X(2)
     02   L.CREDIT               PIC X(2)


RECORD NAME IS EXPORT.REAL
LOCATION MODE CALC PROC-EXSEL USING INVOICE.DATE,
     INVOICE.NO, PART.CODE
     DUPLICATES ARE NOT ALLOWED
WITHIN MARKETING

01   PART.CODE          PIC 9(9)
01   INVOICE.NO         PIC 9(8)
01   INVOICE.DATE       PIC 9(6)
01   QUANTITY           PIC 9(7)V999
01   PRICE              PIC 9(11)V99
01   MATL.ORIGIN        PIC 99
01   PAYMENT.TYPE       PIC AA


RECORD NAME IS REPRESENTATIVE
LOCATION MODE SYSTEM
WITHIN MARKETING

01   REPRS.CODE         PIC 9(6)    TYPE IS DATA-BASE-KEY
01   REPRS.NAME         PIC X(20)
01   REPRS.ADDRESS      PIC X(20)
01   QUOTA              PIC 9(7)V999
01   INFORMATION        PIC X(40)


RECORD NAME IS MONTH.E
LOCATION MODE DIRECT YEAR
WITHIN MARKETING

01   YEAR               PIC 99    TYPE IS DATA-BASE-KEY
01   MONTH              PIC 99
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RECORD NAME IS REPR.REAL
LOCATION MODE CALC PROC-REPSELS USING PART.CODE
     DUPLICATES ARE ALLOWED
WITHIN MARKETING

01   PART.CODE           PIC 9(9)
01   PLAN

     02   QUANTITY                       PIC 9(7)V999
     02   PRICE                          PIC 9(11)V99

01   REAL

     02   QUANTITY                       PIC 9(7)V999
     02   PRICE                          PIC 9(11)V99

01   QUANTITY.SOLD       PIC 9(7)V999
01   SELL.PRICE          PIC 9(11)V99
01   COMMISSION          PIC 9(11)V99
01   RETURN.QUANT        PIC 9(7)V999


RECORD NAME IS PRICE.QUOT
LOCATION NAME VIA COMQT SET
WITHIN MARKETING

01   PRICE               PIC 9(11)V99
01   QUOTA               PIC 9(7)V999


RECORD NAME IS COMPETITORS
LOCATION MODE SYSTEMS
WITHIN MARKETING

01   NAME                PIC X(20)      TYPE IS DATA-BASE-KEY
01   ADDRESS             PIC X(20)
01   FIELD               PIC X(10)
01   PART.CODE           PIC 9(9)
01   INFORMATION         PIC X(40)


RECORD NAME IS IMPORT.LICENCE.M
.LOCATION MODE SYSTEM
WITHIN MARKETING

01   FILE.NO             PIC 9(10)      TYPE IS DATA-BASE-KEY
01   CERTIF.DATE         PIC 9(6)
01   CERTIF.NO           PIC 9(15)
01   IMPORT.TYPE         PIC 9(7)
01   CURRENCY.TYPE       PIC X(5)
01   MONETRY.VALUE       PIC 9(11)V99
01   DEPOSIT.PERCENT     PIC 99
01   DEPOSIT.VALUE       PIC 9(11)V99
01   DEPOSIT.DATE        PIC 9(6)
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01   DEPOSIT.BANK         PIC X(10)
01   LICENCE.DATE         PIC 9(6)
01   LICENCE.NO           PIC 9(15)
01   VALIDITY             PIC 9(6)
01   BEGIN.DATE           PIC 9(6)
01   EXTRA.PERIOD         PIC 9(6)
01   IMPORT.BANK.REF      PIC 9(15)
01   IMPORT.BANK.CODE     PIC 9(10)


RECORD NAME IS LICENCE.DETAIL.M
LOCATION MODE DIRECT MATL.CODE
WITHIN MARKETING

01   MATL.CODE            PIC 9(9)     TYPE IS DATA-BASE-KEY
01   MATL.NAME            PIC X(25)
01   QUOTA.QUAN           PIC 9(7)V999
01   QUOTA.VALUE          PIC 9(11)V99


RECORD NAME IS IMPORT.PREP.M
LOCATION MODE VIA LDIP.M SET
WITHIN MARKETING

01   PROFORM.INVOICE
     02   NO                          PIC 9(8)
     02   DATE                        PIC 9(6)
     02   FIRM.CODE                   PIC 9(6)
     02   QUANTITY                    PIC 9(7)V999
     02   VALUE                       PIC 9(11)V99

01   CORRESPND.BANK       PIC X(10)
01   INTERMDT.BANK        PIC X(10)
01   LETTER.CREDIT
     02   OPEN.DATE                   PIC 9(6)
     02   VALIDITY                    PIC 9(6)
     03   AMOUNT                      PIC 9(11)V99

01   COUNTRY             PIC X(10)
01   EXPLANATION         PIC X(40)
01   TARIF.NO            PIC 9(15)
01   TAX.PERCENT         PIC 99
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RECORD NAME IS IMPORT.REAL.M
LOCATION MODE VIA LDIR.M SET
WITHIN MARKETING

01   IMPORT.DATE          PIC 9(6)
01   EXCHANGE.RATE        PIC 9(5)
01   CUSTM.ARRIV.DATE     PIC 9(6)
01   TRANSP.TYPE          PIC X(10)
01   TRANSP.FIRM          PIC X(10)
01   TRANSP.FIRM          PIC X(10)
01   INSURANCE.COST       PIC 9(11)V99
01   FREIGHT.COST         PIC 9(11)V99
01   QUANTITY             PIC 9(7)V999
01   TOTAL.PRICE          PIC 9(11)V99
01   TRANSFER

     02   DATE                         PIC 9(6)
     02   NO                           PIC 9(15)
     02   EXCHANGE.RATE                PIC 9(5)

01   INSURANCE.POLICY

     02   FIRM                         PIC X(10)
     02   DATE                         PIC 9(6)
     02   NO                           PIC 9(15)

01   REGISTRATION

     02   DATE                         PIC 9(6)
     02   NO                           PIC 9(15)
     02   EXCHANGE.RATE                PIC 9(5)

01   CUSTOM.TAX

     02   PAYM.DATE                    PIC 9(6)
     02   PAYM.NO                      PIC 9(15)
     02   AMOUNT                       PIC 9(11)V99

01   EXPLANATION          PIC X(40)
01   INVOICE.NO           PIC 9(8)


RECORD NAME CERTF.DEPOSIT.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   BANK.CODE            PIC 9(10)     TYPE IS DATA-BASE-KEY
01   VALUE                PIC 9(11)V99
01   CURRENCY.TYPE        PIC X(5)
01   VALIDITY             PIC 9(6)
01   BEGIN.DATE           PIC 9(6)
01   CERTF.NO             PIC 9(15)
01   FIRM.GIVEN           PIC X(20)
01   GIVE.DATE            PIC 9(6)
01   BACK.DATE            PIC 9(6)
01   INTEREST.RATE        PIC 9(2)
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RECORD NAME IS BS.TOTAL.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   DATE              PIC 9(6)    TYPE IS DATA-BASE-KEY
01   VALUE.TOTAL       PIC 9(11)V99


RECORD NAME IS BS.FORMAT.M
LOCATION MODE VIA BTBFHM SET
WITHIN MARKETING

01   LINE.NO           PIC 99
01   ASST.LIABLTY      PIC A
01   TITLE             PIC X(35)
01   UNDERLINE         PIC A
01   COLUMN.NO         PIC 999
01   AMOUNT            PIC 9(11)V99


RECORD NAME IS BS.ACCOUNT.M
LOCATION MODE DIRECT LINE.NO
WITHIN MARKETING

01   LINE              PIC 99   TYPE IS DATA-BASE-KEY
01   TITLE             PIC X(35)
01   COLUMN.NO         PIC 999
01   AMOUNT            PIC 9(11)V99


RECORD NAME IS PL.RESULT.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   DATE              PIC 9(6)    TYPE IS DATA-BASE-KEY
01   VALUE.TOTAL       PIC 9(11)V99


RECORD NAME IS PL.FORMAT.M
LOCATION MODE VIA PRPFM SET
WITHIN MARKETING

01   LINE.NO           PIC 99
01   ASST.LIABLTY      PIC A
01   TITLE             PIC X(35)
01   UNDERLINE         PIC A
01   COLUMN.NO         PIC 999
01   AMOUNT            PIC 9(11)V99
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RECORD NAME IS PL.ACCOUNT.M
LOCATION MODE DIRECT LINE.NO
WITHIN MARKETING

01   LINE.NO          PIC 99     TYPE IS DATA-BASE-KEY
01   TITLE            PIC X(35)
01   COLUMN.NO        PIC 999
01   AMOUNT           PIC 9(11)V99


RECORD NAME IS BUDGET.DATE.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   YEAR             PIC 99     TYPE IS DATA-BASE-KEY
01   MONTH            PIC 99


RECORD NAME IS BUDGET.TOTAL.M
LOCATION MODE DIRECT ACCOUNT.NO
WITHIN MARKETING

01   ACCOUNT.NO       PIC 9(6)     TYPE IS DATA-BASE-KEY
01   ACCOUNT.NAME     PIC X(20)
01   BUDGET.AMOUNT    PIC 9(11)V99
01   REAL.AMOUNT      PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.I.M
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
     DUPLICATES ARE ALLOWED
WITHIN MARKETING

01   LEVEL.NO         PIC 9999
01   BUDAC TYPE BINARY
01   ACCOUNT ACCURS BUDAC TIMES

     02   ACCOUNT.NO           PIC 9(6)
     02   ACCOUNT.NAME         PIC X(20)
     02   BUDGET.AMOUNT        PIC 9(11)V99
     02   REAL.AMOUNT          PIC 9(11)V99


RECORD NAME IS BUDGET.LEVEL.Z.M
LOCATION MODE CALC PROC-BUDLEV USING LEVEL.NO
W    DUPLICATES ARE ALLOWED
WITHIN MARKETING

01   LEVEL.NO         PIC 9999
01   BUDAC TYPE BINARY
01   ACCOUNT OCCURS BUDAC TIMES

     02   ACCOUNT.NO           PIC 9(6)
     02   ACCOUNT.NAME         PIC X(20)
     02   BUDGET.AMOUNT        PIC 9(11)V99
     02   REAL.AMOUNT          PIC 9(11)V99
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RECORD NAME IS CREDIT.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   CERTIFCT.NO        PIC 9(15)    TYPE IS DATA-BASE-KEY
01   RECEIV.DATE        PIC 9(6)
01   CREDIT.TYPE        PIC X(8)
01   EXPLANATION        PIC X(40)
01   LIMIT.VALUE        PIC 9(11)V99
01   VALIDITY           PIC 9(6)
01   CURRENCY.TYPE      PIC X(5)
01   REF.NO             PIC 9(15)
01   DUR TYPE BINARY
01   INTEREST OCCURS DUR TIMES

     02   INTEREST.RATE          PIC 99
     02   INTRST.RATE.DATE       PIC 9(6)


RECORD NAME IS CREDIT.GET.M
LOCATION MODE DIRECT DATE
WITHIN MARKETING

01   DATE               PIC 9(6)    TYPE IS DATA-BASE-KEY
01   AMOUNT             PIC 9(11)V99
01   EXPLANATION        PIC X(40)


RECORD NAME IS CREDIT.PAY.M
LOCATION MODE DIRECT DATE
WITHIN MARKETING

01   DATE               PIC 9(6)    TYPE IS DATA-BASE-KEY
01   AMOUNT             PIC 9(11)V99
01   EXPLANATION        PIC X(40)


RECORD NAME IS PAYABLES.M
LOCATION MODE DIRECT TYPE.PAYABLE
WITHIN MARKETING

01   TYPE.PAYABLE       PIC 9999    TYPE IS DATA-BASE-KEY
01   CREDITOR           PIC X(10)
01   AMOUNT             PIC 9(11)V99
01   DATE.PLAN          PIC 9(6)
01   DATE.DUE           PIC 9(6)
01   DATE.REAL          PIC 9(6)
01   REFERENCE          PIC X(15)
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RECORD NAME IS RECEIVABLES.M
LOCATION MODE DIRECT TYPE.RECEIV
WITHIN MARKETING

01   TYPE.RECEIV        PIC 9999    TYPE IS DATA-BASE-KEY
01   DEBITOR            PIC X(10)
01   AMOUNT             PIC 9(11)V99
01   DATE.PLAN          PIC 9(6)
01   DATE.DUE           PIC 9(6)
01   DATE.REAL          PIC 9(6)
01   REFERENCE          PIC X(15)


RECORD NAME IS BOND.DETAIL.M
LOCATION MODE CALC PROC-BDM USING ENDORSE.DATE,RECEIV.DATE
     DUPLICATIONS ARE NOT ALLOWED
WITHIN MARKETING

01   RECEIV.DATE        PIC 9(6)
01   DEBITOR            PIC X(10)
01   ENDORS.FROM        PIC X(10)
01   ENDORS.TO          PIC X(10)
01   ENDORS.DATE        PIC 9(6)
01   ROLL.NO            PIC 9(15)
01   DEBIT.PLACE        PIC X(12)
01   ENDORSE.REF        PIC 9(15)
01   BANK.REF.NO        PIC 9(15)
01   USAGE.TYPE         PIC X(12)


RECORD NAME IS LEDGER.ACCNT.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   ACCOUNT.NO         PIC 999    TYPE IS DATA-BASE-KEY
01   ACCOUNT.NAME       PIC X(20)
01   DRCR               PIC A
01   REMAINDER          PIC 9(11)V99


RECORD NAME IS SUBSDR.ACCNT.M
·LOCATION MODE CALC PROC-ACM USING ACCOUNT.NO
     DUPLICATES ARE NOT ALLOWED
WITHIN MARKETING

01   ACCOUNT.NO         PIC 99
01   ACCOUNT.NAME       PIC X(20)
01   DRCR               PIC A
01   REMAINDER          PIC 9(11)V99
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RECORD NAME IS JOURNAL.ACCNT.M
LOCATION MODE CALC PROC-ACM USING ACCOUNT.NO
     DUPLICATES ARE NOT ALLOWED
WITHIN MARKETING

01   ACCOUNT.NO         PIC 999
01   ACCOUNT.NAME       PIC X(20)
01   DRCR               PIC A
01   REMAINDER          PIC 9(11)V99


RECORD NAME IS MONTH.H.M
LOCATION MODE CALC PROC-ACM USING YEAR
     DUPLICATES ARE NOT ALLOWED
WITHIN MARKETING

01   YEAR               PIC 99
01   MONTH              PIC 99


RECORD NAME IS JOURNAL.M
LOCATION MODE CALC PROC-ACM USING DATE
     DUPLICATES ARE ALLOWED
WITHIN MARKETING

01   DATE               PIC 9(6)
01   TRANSACT.NO        PIC 9(6)
01   DRCR               PIC A
01   AMOUNT             PIC 9(11)V99
01   EXPLANATION        PIC X(40)


RECORD NAME IS BNAKS.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   BANK.CODE          PIC 9(10)     TYPE IS DATA-BASE-KEY
01   BANK.NAME          PIC X(20)
01   BRANCH.NAME        PIC X(20)
01   BANK.ACCNT.NO      PIC 9(15)
01   BACC TYPE BINARY
01   ACCNT OCCURS BACC TIMES

     02   ACCOUNT.TYPE           PIC 9(15)
     02   REMAINDER              PIC 9(11)V99
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RECORD NAME IS LC.EXPORT
LOCATION MODE SYSTEM
WITHIN MARKETING

01   OPEN.DATE          PIC 9(6)
01   VALIDITY           PIC 9(6)
01   BANK.CODE          PIC 9(6)      TYPE IS DATA-BASE-KEY
01   REF.NO             PIC 9(12)
01   AMOUNT             PIC 9(11)V99
01   CURRENCY.TYPE      PIC X(5)
01   EXPLANATION        PIC X(30)


RECORD NAME IS PAYM.PLAN.DOMST
LOCATION MODE DIRECT YEAR
WITHIN MARKETING

01   YEAR               PIC 99     TYPE IS DATA-BASE-KEY
01   MONTH              PIC 99
01   AMOUNT             PIC 9(11)V99


RECORD NAME IS SHIPMNT.DETAIL
LOCATION MODE DIRECT INVOICE.NO
WITHIN MARKETING

01   INVOICE.NO         PIC 9(8)     TYPE IS DATA-BASE-KEY
01   INVOICE.DATE       PIC 9(6)
01   AMOUNT

     02   F.O.B.                     PIC 9(11)V99
     02   C.I.F.                     PIC 9(11)V99
     02   MONEY.UNIT                 PIC X(5)

01   EXCHANGE.RATE      PIC 9(5)
01   DOLAR.EQVLNT       PIC 9(5)
01   INTERMDTE.BANK     PIC X(10)
01   CORRESPND.BANK     PIC X(10)
01   EXPORT.TYPE        PIC X(5)
01   TRANSPORT

     02   FIRM.NAME                  PIC X(10)
     02   BILL.LADING.NO             PIC 9(10)

01   INSURANCE

     02   FIRM.NAME                  PIC X(10)
     02   POLICY.NO                  PIC 9(10)

01   CUSTOMBROKER                    PIC X(10)
01   MANIFEST

     02   NO                         PIC 9(7)
     02   DATE                       PIC 9(6)
     02   F.O.B.                     PIC 9(11)V99
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    02   C.I.F.                        PIC 9(11)V99
    02   EXCHANGE.RATE                 PIC 9(5)
    02   DOLAR.EQVLNT                  PIC 9(5)
01  CREDIT.CERTF.NO    PIC 9(15)
01  CURRENCY.BOND

    02   NO                           PIC X(12)
    02   DATE                         PIC 9(6)
    02   F.O.B.                       PIC 9(11)V99
    02   C.I.F.                       PIC 9(11)V99
    02   EXCHANGE.RATE                PIC 9(5)
    02   DOLAR.EQVLNT                 PIC 9(5)

01  TAX.REFUND

    02   APPLICATION.DATE             PIC 9(6)
    02   GROSS.AMOUNT                 PIC 9(11)V99
    02   NET.AMOUNT                   PIC 9(11)V99
    02   RECEIVE.DATE                 PIC 9(6)


RECORD NAME IS PAYM.PLAN.EXP
LOCATION MODE DIRECT YEAR
WITHIN MARKETING

01  YEAR              PIC 99     TYPE IS DATA-BASE-KEY
01  MONTH             PIC 99
01  AMOUNT            PIC 9(11)V99


RECORD NAME IS PERSONNEL.LIST.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01  ID.NO             PIC 9(8)     TYPE IS DATA-BASE-KEY
01  NAME              PIC X(20)
01  ADDRESS           PIC X(20)
01  BIRTH.DATE        PIC 9(6)
01  SEX               PIC A
01  ENTER.DATE        PIC 9(6)
01  INSURANCE.NO      PIC 9(9)
01  TAX.NO            PIC 9(9)
01  NATIONALITY       PIC 9(2)
01  INFIRM.CLASS      PIC 9
01  FL TYPE BINARY
01  FOR.LANG. OCCURS FL TIMES

    02   FOREIGN.LANG                 PIC X(10)

01  FATHER.NAME       PIC X(10)
01  MOTHER.NAME       PIC X(10)
01  BIRTH.PLACE       PIC X(10)
01  RELIGION          PIC X(10)
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01   ID.CARD

     02   PROVINCE                    PIC X(10)
     02   TOWN                        PIC X(10)
     02   DISTRICT                    PIC X(10)
     02   QUARTER                     PIC X(10)
     02   HOUSE                       PIC X(6)
     02   BINDING.                    PIC 9(6)
     02   PAGE                        PIC 9(6)
     02   CARD.NO                     PIC 9(9)


RECORD NAME IS EDUCATION
LOCATION MODE VIA PERSEDM SET
WITHIN MARKETING

01   SCHOOL.NAME        PIC X(10)
01   GRADTN.DATE        PIC 9(6)
01   DIPLOME.NO         PIC 9(5)
01   FIELD              PIC X(10)


RECORD NAME IS REFERENCES.M
LOCATION MODE VIA PERSREFM SET
WITHIN MARKETING

01   NAME               PIC X(20)
01   ADDRESS            PIC X(20)
01   POSITION           PIC X(10)


RECORD NAME IS EXPERIENCE.M
LOCATION MODE VIA PERSEXM SET
WITHIN MARKETING

01   COMPANY.NAME       PIC X(15)
01   COMPANY.ADDRESS    PIC X(20)
01   POSITION           PIC X(10)
01   LAST.SALARY        PIC 9(11)V99


RECORD NAME IS PREVIOUS.WORK.M
LOCATION MODE VIA PERSPWM SET
WITHIN MARKETING

01   DEPT.CODE          PIC 99
01   BEGIN.DATE         PIC 9(6)
01   END.DATE           PIC 9(6)
01   POSITION           PIC X(10)
01   SALARY             PIC 9(11)V99
01   GRADES             PIC 9(5)
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RECORD NAME IS FAMILY.INFO.M
LOCATION MODE VIA PERSFIM SET
WITHIN MARKETING

01   MARITAL.STATUS    PIC AA
01   SPOUSE.NAME       PIC X(10)
01   SPOUSE.WORK       PIC X(10)
01   CHLD TYPE BINARY
01   CHILD OCCURS CHLD TIMES

     02   CHILD.NAME              PIC X(10)
     02   CH.BIRTH.DATE           PIC 9(6)
     02   EDUCATION               PIC 99
     02   MARITAL.STAT.           PIC 99


RECORD NAME IS ACTUAL.WORK.M
LOCATION MODE VIA PERSAWM SET
WITHIN MARKETING

01   DEPT.CODE         PIC 99
01   ENTER.DATE        PIC 9(6)
01   POSITION          PIC X(10)
01   SALARY            PIC 9(11)V99
01   GRADE             PIC 9(5)
01   NEXT.LEAVE.DATE   PIC 9(6)
01   NEXT.LEAVE.DATE   PIC 9(6)
01   LVE TYPE BINARY
01   LEAVE OCCURS LVE TIMES

     02   PAST.LEAVE.DATE         PIC 9(6)
     02   PAST.RETRN.DATE         PIC 9(6)


RECORD NAME IS PAY.ROLL.M
LOCATION MODE VIA PERSPRM
WITHIN MARKETING

01   MONTH             PIC 99
01   YEAR              PIC 99
01   WORK.DAY.TOTAL    PIC 99
01   ANNUAL.LEAVE.TIME PIC 999
01   COMPELG.TIME      PIC 999
01   WEEKLY.LEAVE.TIME PIC 9(5)
01   OTHER.LEAVE.TIME  PIC 9(5)
01   HOLIDAY.OVERTIME  PIC 9(5)
01   NORMAL.OVERTIME   PIC 9(5)
01   OVERTIME.PAYMENT  PIC 9(11)V99
01   UNDERTIME.DECREASE PIC 9(11)V99
01   PREMIUM           PIC 9(11)V99
01   BONUS             PIC 9(11)V99
01   CHLD.PAYMNT       PIC 9(11)V99
01   SENIOR.INDEMN     PIC 9(11)V99
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01   EDUCATION.PAYM      PIC 9(11)V99
01   COMBUST.PAYM        PIC 9(11)V99
01   MILITARY.PAYM       PIC 9(11)V99
01   TRAVEL.EXP          PIC 9(11)V99
01   ENCOURAGE.PAYM      PIC 9(11)V99
01   INCREASE.PREPAYM    PIC 9(11)V99
01   PREPAYMENT          PIC 9(11)V99
01   SPECIAL.DISCOUNT    PIC 9(11)V99
01   GENERAL.DISCOUNT    PIC 9(11)V99
01   EMIGRANT.DISCOUNT   PIC 9(11)V99
01   INFIRM.DISCOUNT     PIC 9(11)V99
01   CHILD.DISCOUNT      PIC 9(11)V99
01   EDUCATION.DISCOUNT  PIC 9(11)V99
01   NO.INSURANCE.DAY    PIC 99
01   TAX.CLASS           PIC 99
01   GROSS.INSUR.AMOUNT  PIC 9(11)V99
01   INSURANCE.PREMIUM   PIC 9(11)V99
01   INCOME.TAX          PIC 9(11)V99
01   DEDUCTION OCCURS 8 TIMES

     02   DEDUC.TYPE                 PIC 9(11)V99

01   ROUND.OFF.FACTOR  PIC 999
01   NET.AMOUNT        PIC 9(11)V99


RECORD NAME IS DEPT.STATISTICS.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   DEPT.CODE           PIC 99    TYPE IS DATA-BASE-KEY
01   DEPT.NAME           PIC X(20)
01   NO.EMPLOYEE         PIC 9(5)
01   NO.DIRECT.WORKER    PIC 9(5)
01   NO.INDRCT.WORKER    PIC 9(5)
01   EMPLOYEE.PAYMNTS    PIC 9(11)V99
01   DIRECT.WORK.PAYMNT  PIC 9(11)V99
01   INDRCT.WORK.PAYMNT  PIC 9(11)V99


RECORD NAME IS EXEMPTION.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   EXEMPT.TYPE         PIC 99    TYPE IS DATA-BASE-KEY
01   AMOUNT              PIC 9(11)V99
01   INSUR.EXEMP.RATE    PIC 999
01   TAX.EXEMP.RATE      PIC 999
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RECORD NAME IS TAX.RATE.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   UPPER.LIMIT          PIC 9(11)V99    TYPE IS DATA-BASE-KEY
01   TAX.PERCENTAGE       PIC 99


RECORD NAME IS MONTH.F.M
LOCATION MODE DIRECT MONTH
WITHIN MARKETING

01   MONTH                PIC 99     TYPE IS DATA-BASE-KEY


RECORD NAME IS PLAN.REAL.M
LOCATION MODE VIA MFPRM SET
WITHIN MARKETING

01   WORKER.TYPE          PIC 99
01   PLAN.MAN.HOUR        PIC 9(8)
01   PLAN.MAN             PIC 9(5)
01   REAL.MAN.HOUR        PIC 9(8)
01   REAL.MAN             PIC 9(5)
01   PLAN.SALARY          PIC 9(11)V99
01   REAL.SALARY          PIC 9(11)V99


RECORD NAME IS MACHINE.LIST.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   MACHINE.CODE         PIC 9(9)    TYPE IS DATA BASE KEY
01   MACHINE.NAME         PIC X(20)
01   MANUFACT.NAME        PIC X(20)
01   MANUFACT.ADDRESS     PIC X(20)
01   DELIVER.DATE         PIC 9(6)
01   PRICE                PIC 9(11)V99
01   CODE.OF.MANFT        PIC 9(9)
01   CAPACITY             PIC 9(12)
01   PWT TYPE BINARY
01   POWER OCCURS PWT TIMES

     02   TYPE                       PIC 9(3)
     02   WORK.CONSUMP               PIC 9(12)
     02   IDLE.CONSUMP               PIC 9(12)

01   GUARANTEE.PERIOD     PIC 9(6)
01   AVRG.LIFE            PIC 9(6)
01   DEPR.RATE            PIC 999
01   USAGE.INFO           PIC X(13)
```

```
RECORD NAME IS MONTH.G.M
LOCATION MODE DIRECT YEAR
WITHIN MARKETING

01   YEAR              PIC 99     TYPE IS DATA BASE KEY
01   MONTH             PIC 99


RECORD NAME IS MACH.PLAN.REAL.M
LOCATION MODE DIRECT PLAN.BEGIN.DATE
WITHIN MARKETING

01   PART.CODE         PIC 9(9)
01   ENTER.DATE        PIC 9(6)
01   PLAN.BEGIN.DATE   PIC 9(6)    TYPE IS DATA-BASE-KEY
01   PLAN.END.DATE     PIC 9(6)
01   CONFIRMATION      PIC 9(2)
01   REAL.BEGIN.DATE   PIC 9(6)
01   REAL.END.DATE     PIC 9(6)


RECORD NAME IS FAILURE.M
LOCATION MODE VIA MLFAILM SET
WITHIN MARKETING

01   BREAK.DATE        PIC 9(6)
01   REPAIR.DATE       PIC 9(6)
01   Q TYPE BINARY
01   PC.REPLACED OCCURS Q TIMES

     02   PART.CODE                   PIC 9(9)

01   FIRM.REPAIR       PIC X(10)
01   EXPLANATION       PIC X(40)


RECORD NAME IS MAINT.DETAIL.M
LOCATION MODE VIA MLMDT.LM SET
WITHIN MARKETING

01   MAINT.DATE        PIC 9(6)
01   Q TYPE BINARY
01   REPLACEMENT OCCURS Q TIMES

     02   PART.CODE                   PIC 9(9)

01   FIRM.MAINT        PIC X(10)
```

```
RECORD NAME IS MAINT.PLAN.M
LOCATION MODE VIA MLMPLN.M SET
WITHIN MARKETING

01   SUBPART.CODE        PIC 9(9)
01   MNT TYPE BINARY
01   SUBPART OCCURS MNT TIMES

     02   REPAIR.PERIOD          PIC 9(6)
     02   LAST.REPR.DATE         PIC 9(6)
     02   REPAIR.INFO            PIC X(40)


RECORD NAME IS SPARE.PARTS.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01   WAREHOUSE.NO       PIC 99
01   PART.CODE          PIC 9(9)     TYPE IS DATA-BASE-KEY
01   PART.NAME          PIC X(25)
01   UNIT               PIC 99
01   QUANT.REMAIN       PIC 9(7)V999
01   TOTAL.COST         PIC 9(11)V99
01   MIN.STOCK.LEV      PIC 9(7)V999
01   MAX.STOCK.LEV      PIC 9(7)V999
01   R.O.P.             PIC 9(7)V999
01   R.O.Q.             PIC 9(7)V999


RECORD NAME IS DEMAND.SUPPLY.M
LOCATION MODE VIA SPDSPLM SET
WITHIN MARKETING

01   DEMAND.DATE        PIC 9(6)
01   DEMAND.QUAN        PIC 9(7)V999
01   DEMAND.DEPT        PIC 99
01   MACH.CODE          PIC 9(9)
01   SUPPLY.DATE        PIC 9(6)
01   SUPPLY.QUAN        PIC 9(7)V999
01   ROLL.NO            PIC 9(8)
01   COST               PIC 9(11)V99


RECORD NAME IS R.N.M
LOCATION MODE VIA SUPLRNM SET
WITHIN MARKETING

01   PRICE              PIC 9(11)V99
01   QUOTA              PIC 9(7)V999
```

```
RECORD NAME IS SUPPLIER.MACH.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01  SUPPLIER.CODE     PIC 9(6)     TYPE IS DATA-BASE-KEY
01  SUPPLIER.NAME     PIC X(20)
01  SUPPLIER.ADDRESS  PIC X(20)
01  INFORMATION       PIC X(40)


RECORD NAME IS ORDER.SHIP.M
LOCATION MODE CALC PROC-OSM USING ORDER.DATE,
      SUPPLICER.CODE
      DUPLICATES ARE NOT ALLOWED
WITHIN MARKETING

01  ORDER.DATE        PIC 9(6)
01  ORDER.QUAN        PIC 9(7)V999
01  SUPPLIER.CODE     PIC 9(6)
01  DELIVERY.DATE     PIC 9(6)
01  DELIVERY.QUAN     PIC 9(7)V999
01  INVOICE.NO        PIC 9(8)
01  PRICE             PIC 9(11)V99


RECORD NAME IS FIXED.ASSETS.M
LOCATION MODE SYSTEM
WITHIN MARKETING

01  CODE              PIC 9(9)     TYPE IS DATA-BASE-KEY
01  NAME              PIC X(20)
01  PURCHASE.DATE     PIC 9(6)
01  INITIAL.PRICE     PIC 9(11)V99
01  DEPR.DATE         PIC 999
01  DEPT.USING        PIC 99
```

```
SET NAME IS SYSTBSHC
      OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
      MEMBER IS BS.TOTAL.HC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTBSHC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTBSCC
      OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
      MEMBER IS BS.TOTAL.CC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTBSCC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSPLHC
      OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
      MEMBER IS PL.RESULT.HC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTPLHC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTPLCC
      OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
      MEMBER IS PL.RESULT.CC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTPLCC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTBDHC
      OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
      MEMBER IS BUDGET.DATE.HC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTBDHC
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSTBDCC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
        MEMBER IS BUDGET.DATE.CC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTBDCC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTMMHC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
        MEMBER IS MONTH.M.HC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTMMHC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTMMCC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
        MEMBER IS MONTH.M.CC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTMMCC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTPIHC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
        MEMBER IS PERS.INDEX.HC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTPIHC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTPICC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
        MEMBER IS PERS.INDEX.CC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTPICC
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSTBIHC

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS BANK.INDEX.CC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTBIHC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTBICC

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS BANK.INDEX.CC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTBICC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTMHHC

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS MATERIAL.HOUSE.HC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTMHHC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTHCC

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS MATERIAL.HOUSE.CC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTMHCC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTFAHC

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS FIXED ASSETS.HC
            MANDATORY AUTOMATIC
            SET SELECTION THRU  SYSTFAHC
```

```
SET NAME IS SYSTFACC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
        MEMBER IS FIXED ASSETS.CC
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTFACC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SWHCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
        MEMBER IS WAREHOUSE.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SWHCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SPICR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
        MEMBER IS PART.ID.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPICR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SSUPCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
        MEMBER IS SUPPLIER.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SSUPCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SSPDCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY
        MEMBER IS PRODUCTION.DATA.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SSPDCR
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSRCR

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS REGION.CR
            MANDATORY AUTOMATIC
        .   SET SELECTION THRU SYSRCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSMBCR

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS MONTH.B.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSMBCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SWHM

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS WAREHOUSE.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SWHM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SPIDM

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS PART.ID.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPIDM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SSUPM

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS SUPPLIER.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SSUPM
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SCDM

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS CUSTOMER.DOMESTIC.M
            MANDATORY AUTOMATIC
        ·   SET SELECTION THRU SCDM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SCEM

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS CUSTOMER.EXPORT.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SCEM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SREPRM

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS REPRESENTATIVE.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SREPRM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SCOMPTM

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS COMPETITORS.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SCOMPTM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SPPLP

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS PART.LIST.P
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPPLP
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SSUPP

        OWNER IS SYSTEM
               ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS SUPPLIER.P
               MANDATORY AUTOMATIC
               SET SELECTION THRU SSUPP
               OWNER IDENTIFIED BY SYSTEM


SET NAME IS SSUPT

        OWNER IS SYSTEM
               ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS SUPPLIER.T
               MANDATORY AUTOMATIC
               SET SELECTION THRU SSUPT
               OWNER IDENTIFIED BY SYSTEM


SET NAME IS STDP

        OWNER IS SYSTEM
               ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS TEST.DATA.P
               MANDATORY AUTOMATIC
               SET SELECTION THRU STDP
               OWNER IDENTIFIED BY SYSTEM


SET NAME IS STDT

        OWNER IS SYSTEM
               ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS TEST.DATA.T
               MANDATORY AUTOMATIC
               SET SELECTION THRU STDT
               OWNER IDENTIFIED BY SYSTEM


SET NAME IS SRCPP

        OWNER IS SYSTEM
               ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS RECIPE.P
               MANDATORY AUTOMATIC
               SET SELECTION THRU SRCPP
               OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SQCSP
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS QC.STATISTICS.P
            MANDATORY AUTOMATIC
            SET SELECTION THRU SQCSP
            OWNER IDENTIFED BY SYSTEM


SET NAME IS SMODT
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA-BASE-KEY

        MEMBER IS MODEL.T
            MANDATORY AUTOMATIC
            SET SELECTION THRU SMODT
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTILCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS IMPORT.LICENCE.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTILCR
            OWNER IS IDENTIFIED BY SYSTEM


SET NAME IS SYSTILP
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS IMPORT.LICENCE.P
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTILP
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSTILT
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS IMPORT.LICENCE.T
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSTILT
```

```
SET NAME IS SYSTILM
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS IMPORT.LICENCE.M
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSTILM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSCDCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS CERTF.DEPOSIT.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSCDCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSCDC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS CERTF.DEPOSIT.C
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSCDC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSCDT
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS CERTF.DEPOSIT.T
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSCDT
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSCDH
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS CERTF.DEPOSIT.H
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSCDH
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSCDM

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CERTF.DEPOSIT.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSCDM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSCDP

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CERTF.DEPOSIT.P
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSCDP
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBSH

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BS.TOTAL.H
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSBSH
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBSC

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BS.TOTAL.C
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSBSC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBSCR

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BS.TOTAL.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSBSCR
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSBST
     OWNER IS SYSTEM
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
     MEMBER IS BS.TOTAL.T
          MANDATORY AUTOMATIC
          SET SELECTION THRU SYSBST
          OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBSP
     OWNER IS SYSTEM
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
     MEMBER IS BS.TOTAL.P
          MANDATORY AUTOMATIC
          SET SELECTION THRY SYSBSP
          OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBSM
     OWNER IS SYSTEM
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
     MEMBER IS BS.TOTAL.M
          MANDATORY AUTOMATIC
          SET SELECTION THRU SYSBSM
          OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSPLH
     OWNER IS SYSTEM
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
     MEMBER IS PL.RESULT.H
          MANDATORY AUTOMATIC
          SET SELECTION THRY SYSPLH
          OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSPLC
     OWNER IS SYSTEM
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
     MEMBER IS PL.RESULT.C
          MANDATORY AUTOMATIC
          SET SELECTION THRU SYSPLC
          OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSPLCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS PL.RESULT.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSPLCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSPLT
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS PL.RESULT.T
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSPLT
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSPLM
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS PL.RESULT.M
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSPLM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSPLP
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS PL.RESULT.P
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSPLP
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBDH
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS BUDGET.DATE.H
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSBDH
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSBDC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS BUDGET.DATE.C
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSBDC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSDRCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS BUDGET.DATE.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSBDCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBDT
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS BUDGET.DATE.T
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSBDT
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBDP
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS BUDGET.DATE.P
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSBDP
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBDM
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORETED BY DATA BASE KEY
        MEMBER IS BUDGET.DATE.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSBDM
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSCRDH

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.H
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSCRDH
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSCRDC

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.C
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSCRDC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSCRDCR

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSCRDCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSCRDT

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.T
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSCRDT
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSCRDP

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.P
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSCRDP
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSCRDM

        OWNER IS SYSTEM
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.M
           MANDATORY AUTOMATIC
           SET SELECTION THRU SYSCRDM
           OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSLAH

        OWNER IS SYSTEM
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS LEDGER.ACCNT.H
           MANDATORY AUTOMATIC
           SET SELECTION THRU SYSLAH
           OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSLAC

        OWNER IS SYSTEM
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS LEDGER.ACCNT.C
           MANDATORY AUTOMATIC
           SET SELECTION THRY SYSLAC
           OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSLACR

        OWNER IS SYSTEM
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS LEDGER.ACCNT.CR
           MANDATORY AUTOMATIC
           SET SELECTION THRY SYSLACR
           OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSLAT

        OWNER IS SYSTEM
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS LEDGER.ACCNT.T
           MANDATORY AUTOMATIC
           SET SELECTION THRU SYSLAT
           OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSLAP
        OWNER IS SYSTEM
                ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS LEDGER.ACCNT.P
                MANDATORY AUTOMATIC
                SET SELECTION THRU SYSLAP
                OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSLAM
        OWNER IS SYSTEM
                ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS LEDGER.ACCNT.M
                MANDATORY AUTOMATIC
                SET SELECTION THRU SYSLAM
                OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBH
        OWNER IS SYSTEM
                ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS BANK.H
                MANDATORY AUTOMATIC
                SET SELECTION THRU SYSBH
                OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBC
        OWNER IS SYSTEM
                ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS BANKS.C
                MANDATORY AUTOMATIC
                SET SELECTION THRU SYSBC
                OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBCR
        OWNER IS SYSTEM
                ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS BANKS.CR
                MANDATORY AUTOMATIC
                SET SELECTION THRU SYSBCR
                OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSBT

        OWNER IS SYSTEM
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BANKS.T
             MANDATORY AUTOMATIC
             SET SELECTION THRU SYSBT
             OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBP

        OWNER IS SYSTEM
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BANKS.P
             MANDATORY AUTOMATIC
             SET SELECTION THRU SYSBP
             OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSBM

        OWNER IS SYSTEM
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BANKS.M
             MANDATORY AUTOMATIC
             SET SELECTION THRU SYSBM
             OWNER IDENTIFIED BY SYSTEM


SET NAME IS SPERSH

        OWNER IS SYSTEM
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PERSONNEL.LIST.H
             MANDATORY AUTOMATIC
             SET SELECTION THRU SPERSH
             OWNER IDENTIFIED BY SYSTEM


SET NAME IS SPERSC

        OWNER IS SYSTEM
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PERSONNEL.LIST.C
             MANDATORY AUTOMATIC
             SET SELECTION THRU SPERSC
             OWNER IDENTIFIED BY SYSTEM
```

SET NAME IS SPERSCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS PERSONNEL.LIST.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPERSCR
            OWNER IDENTIFIED BY SYSTEM

SET NAME IS SPERST
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS PERSONNEL.LIST.T
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPERST
            OWNER IDENTIFIED BY SYSTEM

SET NAME IS SPERSP
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS PERSONNEL.LIST.P
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPERSP
            OWNER IDENTIFIED BY SYSTEM

SET NAME IS SPERSM
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS PERSONNEL.LIST.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPERMS
            OWNER IDENTIFIED BY SYSTEM

SET NAME IS SYSDSH
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS DEPT.STATISTICS.H
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSDSH
            OWNER IDENTIFIED BY SYSTEM

```
SET NAME IS SYSDSC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS DEPT.STATISTICS.C
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSDSC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSDSM
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS DEPT.STATISTICS.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSDSCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSDST
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS DEPT.STATISTICS.T
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSDST
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSDSP
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS DEPT STATISTICS.P
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSDSP
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSDSM
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS DEPT.STATISTICS.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSDSM
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSEXH

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EXEMPTION.H
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSEXH
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSEXC

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EXEMPTION.C
            MANDATORY AUTOMATIC
            SET SELECTION THRY SYSEXC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSEXCR

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EXEMPTION.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSEXCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSEXT

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EXEMPTION.T
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSEXT
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SYSEXP

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EXEMPTION.P
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSEX.P
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SYSEXM

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EXEMPTION.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SYSEXM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS STRH

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS TAX.RATE.H
            MANDATORY AUTOMATIC
            SET SELECTION THRU STRH
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS STRC

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS TAX.RATE.C
            MANDATORY AUTOMATIC
            SET SELECTION THRU STRC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS STRCR

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS TAX.RATE.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU STRCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS STRT

        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS TAX.RATE.T
            MANDATORY AUTOMATIC
            SET SELECTION THRU STRT
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS STRP

        OWNER IS SYSTEM
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS TAX.RATE.P
             MANDATORY AUTOMATIC
             SET SELECTION THRU STRP
             OWNER IDENTIFIED BY SYSTEM


SET NAME IS STRM

        OWNER IS SYSTEM
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS TAX.RATE.M
             MANDATORY AUTOMATIC
             SET SELECTION THRU STRM
             OWNER IDENTIFIED BY SYSTEM


SET NAME IS MLSYCR

        OWNER IS SYSTEM
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MACHINE.LIST.CR
             MANDATORY AUTOMATIC
             SET SELECTION THRU MLSYCR
             OWNER IDENTIFIED BY SYSTEM


SET NAME IS MLSYT

        OWNER IS SYSTEM
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MACHINE.LIST.T
             MANDATORY AUTOMATIC
             SET SELECTION THRU MLSYT
             OWNER IDENTIFIED BY SYSTEM


SET NAME IS MLSYP

        OWNER IS SYSTEM
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MACHINE.LIST.P
             MANDATORY AUTOMATIC
             SET SELECTION THRU MLSYP
             OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS MLSYM
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS MACHINE.LIST.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU MLSYM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SPSYCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS SPARE.PARTS.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPSYCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SPSYT
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS SPARE.PARTS.T
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPSYT
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SPSYP
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS SPARE.PARTS.P
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPSYP
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SPSYM
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS SPARE.PARTS.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SPSYM
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS SMSYCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS SUPPLIER.MACH.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU SMSYCR
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SMSYT
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS SUPPLIER.MACH.T
            MANDATORY AUTOMATIC
            SET SELECTION THRU SMSYT
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SMSYP
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS SUPPLIER.MACHINE.P
            MANDATORY AUTOMATIC
            SET SELECTION THRY SMSYP
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS SMSYM
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS SUPPLIER.MACHINE.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU SMSYM
            OWNER IDENTIFIED BY SYSTEM


SET IS FASYCR
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS FIXED.ASSETS.CR
            MANDATORY AUTOMATIC
            SET SELECTION THRU FASYCR
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS FASYT
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS FIXED.ASSETS.T
            MANDATORY AUTOMATIC
            SET SELECTION THRU FASYT
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS FASYP
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS FIXED.ASSETS.P
            MANDATORY AUTOMATIC
            SET SELECTION THRU FASYP
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS FASYM
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS FIXED.ASSETS.M
            MANDATORY AUTOMATIC
            SET SELECTION THRU FASYM
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS FASYHC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS FIXED.ASSETS.HC
            MANDATORY AUTOMATIC
            SET SELECTION THRU FASYHC
            OWNER IDENTIFIED BY SYSTEM


SET NAME IS FASYCC
        OWNER IS SYSTEM
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS FIXED.ASSETS.CC
            MANDATORY AUTOMATIC
            SET SELECTION THRU FASYCC
            OWNER IDENTIFIED BY SYSTEM
```

```
SET NAME IS BS

      OWNER IS BS.ACCOUNT.HC
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BS.ACCOUNT.CC
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU BS
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS BS.ACCOUNT.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU BS
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS BS.ACCOUNT.H
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU BS
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER OF BS.ACCOUNT.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU BS
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS BS.ACCOUNT.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU BS
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PL

      OWNER IS PL.ACCOUNT.HC
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PL.ACCOUNT.CC
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PL
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS PL.ACCOUNT.H
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PL
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
      MEMBER IS PL.ACCOUNT.T
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU PL
           OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS PL.ACCOUNT.P
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU PL
           OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS PL.ACCOUNT.M
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU PL
           OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BUDGET
      OWNER IS BUDGET.LEVEL.HC
           ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.CC
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU BUDGET
           OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS BUDGET.LEVEL.H
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU BUDGET
           OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS BUDGET.LEVEL.T
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU BUDGET
           OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS BUDGET.LEVEL.P
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU BUDGET
           OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS BUDGET.LEVEL.M
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU BUDGET
           OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PERSON
        OWNER IS PERS.INDEX.HC
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS PERS.INDEX.CC
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSON
            OWNER IDENTIFIED BY CURRENT OF SET
        MEMBER IS PERSONNEL.LIST.H
            MANDATORY AUTOMATIC
          :LINKED TO OWNER
            SET SELECTION THRU PERSON
            OWNER IDENTIFIED BY CURRENT OF SET
        MEMBER IS PERSONNEL.LIST.T
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSON
            OWNER IDENTIFIED BY CURRENT OF SET
        MEMBER IS PERSONNEL.LIST.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSON
            OWNER IDENTIFIED BY CURRENT OF SET
        MEMBER IS PERSONNEL.LIST.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSON
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS B
        OWNER IS BANK.INDEX.HC
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS BANK.INDEX.CC
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU B
            OWNER IDENTIFIED BY CURRENT OF SET
        MEMBER IS BANKS.H
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU B
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
MEMBER IS BANKS.T
     MANDATORY AUTOMATIC
     LINKED TO OWNER
     SET SELECTION THRU B
     OWNER IDENTIFIED BY CURRENT OF SET

MEMBER IS BANKS.P
     MANDATORY AUTOMATIC
     LINKED TO OWNER
     SET SELECTION THRU B
     OWNER IDENTIFIED BY CURRENT OF SET

MEMBER IS BANKS.M
     MANDATORY AUTOMATIC
     LINKED TO OWNER
     SET SELECTION THRU B
     OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PAY

     OWNER IS TOTAL.PAYBLS.HC
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS TOTAL.PAYBLS.CC
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PAY
          OWNER IDENTIFIED BY CURRENT OF SET

     MEMBER IS PAYABLES.H
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PAY
          OWNER IDENTIFIED BY CURRENT OF SET

     MEMBER IS PAYABLES.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PAY
          OWNER IDENTIFIED BY CURRENT OF SET

     MEMBER IS PAYABLES.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PAY
          OWNER IDENTIFIED BY CURRENT OF SET

     MEMBER IS PAYABLES.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PAY
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS RECEIV
        OWNER IS TOTAL.RECEIVL.HC
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS TOTAL.RECEIVL.CC
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU RECEIV
            OWNER IDENTIFIED BY CURRENT OF SET

        MEMBER IS RECEIVABLES.H
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU RECEIV
            OWNER IDENTIFIED BY CURRENT OF SET

        MEMBER IS RECEIVABLES.T
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU RECEIV
            OWNER IDENTIFIED BY CURRENT OF SET

        MEMBER IS RECEIVABLES.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU RECEIV
            ONWER IDENTIFIED BY CURRENT OF SET

        MEMBER IS RECEIVABLES.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU RECEIV
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MTRL
        OWNER IS MATERIAL.HOUSE.HC
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MATERIAL.HOUSE.CC
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MTRL
            OWNER IDENTIFIED BY CURRENT OF SET

        MEMBER IS PART.LIST.T
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MTRL
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
      MEMBER IS PART.LIST P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MTRL
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS WAREHOUSE.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MTRL
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS FA

      OWNER IS FIXED.ASSETS.HC
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS FIXED.ASSETS.CC
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU FA
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS FIXED.ASSETS.H
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU FA
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS FIXED.ASSETS.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU FA
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS FIXED.ASSETS.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU FA
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS FIXED.ASSETS.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU FA
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BTBF

        OWNER IS BS.TOTAL
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BS.FORMAT
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION BY DATA BASE KEY


SET NAME IS BFBA

        OWNER IS BS.FORMAT
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS BS.ACCOUNT
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU BFBA
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRPF

        OWNER IS PL.RESULT
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PL.FORMAT
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU PRPF
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PFPA

        OWNER IS PL.FORMAT
            ORDER IS PERMANENT BY DEFINED KEYS

        MEMBER IS PL.ACCOUNT
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU PFPA
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BDBT

     OWNER IS BUDGET.DATE
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS BUDGET.TOTAL
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ACCOUNT.NO
          SET SELECTION THRU BDBT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BTBL

     OWNER IS BUDGET.TOTAL
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS BUDGET.LEVEL.I
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LEVEL.NO
          SET SELECTION THRU BTBL
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BLABLB

     OWNER IS BUDGET.LEVEL.I
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS BUDGET.LEVEL.Z
          MANDATORY MANUAL
          KEY IS ASCENDING LEVEL.NO
          SET SELECTION THRU BLABLB
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MMPAY

     OWNER IS MONTH.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS TOTAL.PAYBLS
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MMPAY
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS MMREC
        OWNER IS MONTH.M
              ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS TOTAL.RECVBLS
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU MMREC
              OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BSA
        OWNER IS BS.ACCOUNT.CC
              ORDER IS PERMANENT BY DEFINED KEYS
        MEMBER IS BS.ACCOUNT.C
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU BSA
              OWNER IDENTIFIED BY CURRENT OF SET
        MEMBER IS BS.ACCOUNT.CR
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU BSA
              OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BLA
        OWNER IS PL.ACCOUNT.CC
              ORDER IS PERMANENT BY DEFINED KEYS
        MEMBER IS PL.ACCOUNT.C
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU PLA
              OWNER IDENTIFIED BY CURRENT OF SET
        MEMBER IS PL.ACCOUNT.CR
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU PLA
              OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PERSL

      OWNER IS PERS.INDEX.CC
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PERSONNEL.LIST.C
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PERSL
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS PERSONNEL.LIST.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PERSL
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNK

      OWNER IS BANK.INDEX.CC
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BANKS.C
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU BNK
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS BANKS.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU BNK
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PAYL

      OWNER IS TOTAL.PAYBLS.CC
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PAYABLES.C
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PAYL
          OWNER IDENTIFIED BY CURRENT OF SET

      MEMBER IS PAYABLES.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PAYL
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS RECEIVL

        OWNER IS TOTAL.RECVBLS.CC
              ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS RECEIVABLES.C
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU RECEIVL
              OWNER IDENTIFIED BY CURRENT OF SET

        MEMBER IS RECEIVABLES.CR
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU RECEIVL
              OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BUDLEV

        OWNER IS BUDGET.LEVEL.CC
              ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS BUDGET.LEVEL.C
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU BUDLEV
              OWNER IDENTIFIED BY CURRENT OF SET

        MEMBER IS BUDGET.LEVEL.CR
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU BUDLEV
              OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MATER

        OWNER IS MATERIAL.HOUSE.CC
              ORDER IS PERMANENT SORTED BY DATA BASE KEYS

        MEMBER IS WAREHOUSE.C
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU MATER
              OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS FASTCC

        OWNER IS FIXED.ASSETS.CC
              ORDER IS PERMANENT SORTED BY DATA BASE KEYS

        MEMBER IS FIXED.ASSETS.C
              MANDATORY AUTOMATIC
```

```
              LINKED TO OWNER
              SET SELECTION THRU FASTCC
              ORDER IDENTIFIED BY CURRENT OF SET

         MEMBER IS FIXED.ASSETS.CR
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU FASTCC
              ORDER IDENTIFIED BY CURRENT OF SET


SET NAME IS BRBF

         OWNER IS BS.TOTAL
              ORDER IS PERMANENT SORTED BY DATA BASE KEY

         MEMBER IS BS.FORMAT
              MANDATORY AUTOMATIC
              KEY IS ASCENDING LINE.NO
              SET SELECTION BY DATA BASE KEY


SET NAME IS BFBA

         OWNER IS BS.FORMAT
              ORDER IS PERMANENT SORTED BY DEFINED KEYS

         MEMBER IS BS.ACCOUNT
              MANDATORY AUTOMATIC
              KEY IS ASCENDING LINE.NO
              SET SELECTION THRU BFBA
              OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRPF

         OWNER IS PL.RESULT
              ORDER IS PERMANENT SORTED BY DATA BASE KEYS

         MEMBER IS PL.FORMAT
              MANDATORY AUTOMATIC
              KEY IS ASCENDING LINE.NO
              SET SELECTION THRU PRPF
              OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PFPA

         OWNER IS PL.FORMAT
              ORDER IS PERMANENT BY DEFINED KEYS

         MEMBER IS PL.ACCOUNT
              MANDATORY AUTOMATIC
              KEY IS ASCENDING LINE.NO
              SET SELECTION THRU PFPA
              OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BDBT
        OWNER IS BUDGET.DATE
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BUDGET.TOTAL
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ACCOUNT.NO
            SET SELECTION THRU BDBT
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BTBL
        OWNER IS BUDGET.TOTAL
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS BUDGET.LEVEL.I
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LEVEL.NO
            SET SELECTION THRU BTBL
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BLABLB
        OWNER IS BUDGET.LEVEL.I
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS BUDGET.LEVEL.Z
            MANDATORY MANUAL
            KEY IS ASCENDING LEVEL.NO
            SET SELECTION THRU BLABLB
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MMPAY
        OWNER IS MONTH.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS TOTAL.PAYBLS
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MMPAY
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MMREC
        OWNER IS MONTH.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS TOTAL.RECVBLS
            MANDATORY AUTOMATIC
```

```
                LINKED TO OWNER
                SET SELECTION THRU MMREC
                OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BTBFH
        OWNER IS BS.TOTAL.H
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BS.FORMAT.H
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU BTBFH
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BFBAH
        OWNER IS BS.FORMAT.H
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS BS.ACCOUNT.H
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU BFBAH
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRPFH
        OWNER IS PL.RESULT.H
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PL.FORMAT.H
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU PRPFH
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PFPAH
        OWNER IS PL.FORMAT.H
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PL.ACCOUNT.H
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU PFPAH
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS LASAH

        OWNER IS LEDGER.ACCNT.H
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS SUBSDR.ACCNT.H
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ACCOUNT.NO
            SET SELECTION THRU LASAH
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SAJAH

        OWNER IS SUBSDR.ACCNT.H
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS JOURNAL.ACCNT.H
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ACCOUNT.NO
            SET SELECTION THRU SAJAH
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JAMHH

        OWNER IS JOURNAL.ACCNT.H
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS MONTH.H.H
            MANDATORY AUTOMATIC
            KEY IS ASCENDING YEAR
            SEARCH KEY IS MONTH
            SET SELECTION THRU JAMHH
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHJH

        OWNER IS MONTH.H.H.
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS JOURNAL.H
            MANDATORY AUTOMATIC
            KEY IS ASCENDING DATE
            SEARCH KEY IS TRANSACT.NO
            SET SELECTION THRU MHJH
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS CRGETH

      OWNER IS CREDIT.H
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS CREDIT.GET.H
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          KEY IS ASCENDING DATE
          SET SELECTION THRU CRGETH
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS CRPAYH

      OWNER IS CREDIT.H
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS CREDIT.PAY.H
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          KEY IS ASCENDING DATE
          SET SELECTION THRU CRPAYH
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BDBTH

      OWNER IS BUDGET.DATE.H
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BUDGET.TOTAL.H
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ACCOUNT.NO
          SET SELECTION THRU BDBTH
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BTBLH

      OWNER IS BUDGET.LEVEL.I.H
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.Z.H
          MANDATORY MANUAL
          KEY IS ASCENDING LEVEL.NO
          SET SELECTION THRU BLABLBH
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PBONDH

        OWNER IS PAYABLES.H
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BOND.DETAIL.H
            MANDATORY MANUAL
            KEY IS ASCENDING ENDORSE.DATE
            SEARCH KEY IS RECEIV.DATE
            SET SELECTION THRU PBONDH
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS RBONDH

        OWNER IS RECEIVABLES.H
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BOND.DETAIL.H
            MANDATORY MANUAL
            KEY IS ASCENDING ENDORSE.DATE
            SEARCH KEY IS RECEIV.DATE
            SET SELECTION THRU PBONDH
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLBSH

        OWNER IS JOURNAL.ACCNT.H
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBERS IS BANKS.H
            MANDATORY MANUAL
            KEY IS ASCENDING BANK.CODE
            SET SELECTION THRU JLBSH
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLCTH

        OWNER IS JOURNAL.ACCNT.H
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS CREDIT.H
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JLBSH
            OWNER IDENTIFIED BY CURRENT OF SET
```

SET NAME IS JLPSH

    OWNER IS JOURNAL.ACCNT.H
       ORDER IS PERMANENT SORTED BY DEFINED KEYS

    MEMBER IS PAYABLES.H
       MANDATORY MANUAL
       LINKED TO OWNER
       SET SELECTION TᴴRU JLPSH
       OWNER IDENTIFIED BY CURRENT OF SET

SET NAME IS JLRSH

    OWNER IS JOURNAL.ACCNT.H
       ORDER IS PERMANENT SORTED BY DEFINED KEYS

    MEMBER IS RECEIVABLES.H
       MANDATORY MANUAL
       LINKED TO OWNER
       SET SELECTION THRU JLRSH
       OWNER IDENTIFIED BY CURRENT OF SET

SET NAME IS MHBLLHH

    OWNER IS MONTH.H.H
       ORDER IS PERMANENT SORTED BY DEFINED KEYS

    MEMBER IS BUDGET.LEVEL.Z.H
       MANDATORY AUTOMATIC
       LINKED TO OWNER
       SET SELECTION THRU MHBLLH
       OWNER IDENTIFIED BY CURRENT OF SET

SET NAME IS JAPLAH

    OWNER IS JOURNAL;ACCNT.H
       ORDER IS PERMANENT SORTED BY DEFINED KEYS

    MEMBER IS PL;ACCOUNT.H
       MANDATORY MANUAL
       LINKED TO OWNER
       SET SELECTION THRU JAPLAH
       OWNER IDENTIFIED BY CURRENT OF SET

```
SET NAME IS LABSAH

        OWNER IS LEDGER.ACCNT.H
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BS.ACCOUNT.H
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU LABSAH
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNCRTH

        OWNER IS BANKS.H
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.H
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNCRTH
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNILCH

        OWNER IS BANKS.H
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS IMPORT.LICENSE.H
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNILCH
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNIPRH

        OWNER IS BANKS.H
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS IMPORT.PREP.H
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNIPRH
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNSDPH

        OWNER IS BANKS.H
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CERTF.DEPOSIT.H
            MANDATORY AUTOMATIC
```

```
              LINKED TO OWNER
        '     SET SELECTION THRU BNCDPH
              OWNER IDENTIFIED BY CURRENT OF SET


   SET NAME IS PERSEDH

          OWNER IS PERSONNEL.LIST.H
              ORDER IS PERMANENT SORTED BY DATA BASE KEY

          MEMBER IS EDUCATION.H
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU PERSEDH
              OWNER IDENTIFIED BY DATA BASE KEY


   SET NAME IS PERSREFH

          OWNER IS PERSONNEL.LIST.H
              ORDER IS PERMANENT SORTED BY DATA BASE KEY

          MEMBER IS REFERENCES.H
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU PERSREFH
              OWNER IDENTIFIED BY DATA BASE KEY


   SET NAME IS PERSPWH

          OWNER IS PERSONNEL.LIST.H
              ORDER IS PERMANENT SORTED BY DATA BASE KEY

          MEMBER IS PREVIOUS.WORK.H
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU PERSPWH
              OWNER IDENTIFIED BY DATA BASE KEY


   SET NAME IS PERSFIH

          OWNER IS PERSONNEL.LIST.H
              ORDER IS PERMANENT SORTED BY DATA BASE KEY

          MEMBER IS FAMILY.INFO.H
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU PERSFIH
              OWNER IDENTIFIED BY DATA BASE KEY
```

SET NAME IS PERSEXH

      OWNER IS PERSONNEL.LIST.H
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS EXPERIENCE.H
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PERSEXH
          OWNER IDENTIFIED BY DATA BASE KEY

SET NAME IS PERSAWH

      OWNER IS PERSONNEL.LIST.H
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS ACTUAL.WORK.H
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PERSAWH
          OWNER IDENTIFIED BY DATA BASE KEY

SET NAME IS DEPTAWH

      OWNER IS DEPT.STATISTICS.H
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS ACTUAL.WORK.H
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU DEPTAWH
          OWNER IDENTIFIED BY CURRENT OF SET

SET NAME IS PERSPRH

      OWNER IS PERSONNEL.LIST.H
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PAY.ROLL.H
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PERSPRH
          OWNER IDENTIFIED BY DATA BASE KEY

SET NAME IS DEPTMFH

    OWNER IS DEPT.STATISTICS.H
       ORDER IS PERMANENT SORTED BY DATA BASE KEY

    MEMBER IS MONTH.F.H
       MANDATORY AUTOMATIC
       LINKED TO OWNER
       SET SELECTION THRU DEPTMFH
       OWNER IDENTIFIED BY CURRENT OF SET

SET NAME IS MFPRH

    OWNER IS MONTH.F.H
       ORDER IS PERMANENT SORTED BY DATA BASE KEY

    MEMBER IS PLAN.REAL.H
       MANDATORY AUTOMATIC
       LINKED TO OWNER
       SET SELECTION THRU MFPRH
       OWNER IDENTIFIED BY DATA BASE KEY

SET NAME IS JOURFAH

    OWNER IS JOURNAL.ACCOUNT.H
       ORDER IS PERMANENT SORTED BY DEFINED KEYS

    MEMBER IS FIXED.ASSETS.H
       MANDATORY MANUAL
       LINKED TO OWNER
       SET SELECTION THRU JOURFAH
       OWNER IDENTIFIED BY CURRENT OF SET

SET NAME IS JOURPRH

    OWNER IS JOURNAL.ACCOUNT.H
       ORDER IS PERMANENT SORTED BY DEFINED KEYS

    MEMBER IS PAY.ROLL.H
       MANDATORY MANUAL
       LINKED TO OWNER
       SET SELECTION THRU JOURPRH
       OWNER IDENTIFIED BY CURRENT OF SET

```
SET NAME IS BTBFC

        OWNER IS BS.TOTAL.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BS.FORMAT.C
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU BTBFC
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BFBAC

        OWNER IS BS.FORMAT.C
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS BS.ACCOUNT.C
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU BFBAC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRPFC

        OWNER IS PL.RESULT.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PL.FORMAT.C
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU PRPFC
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PFPAC

        OWNER IS PL.FORMAT.C
            ORDER IS PERMANENT BY DEFINED KEYS

        MEMBER IS PL.ACCOUNT.C
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU PFPAC
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS LASAC

        OWNER IS LEDGET.ACCNT.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS SUBSDR.ACCNT.C
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ACCOUNT.NO
            SET SELECTION THRU LASAC
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SAJAC

        OWNER IS SUBSDR.ACCNT.C
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS JOURNAL.ACCNT.C
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ACCOUNT.NO
            SET SELECTION THRU SAJAC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JAMHC

        OWNER IS JOURNAL.ACCNT.C
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS MONTH.H.C.
            MANDATORY AUTOMATIC
            KEY IS ASCENDING YEAR
            SEARCH KEY IS MONTH
            SET SELECTION THRU JAMHC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHJC

        OWNER IS MONTH.H.C
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS JOURNAL.C
            MANDATORY AUTOMATIC
            KEY IS ASCENDING DATE
            SEARCH KEY IS TRANSACT.NO
            SET SELECTION THRU MHJC
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS CRGETC

      OWNER IS CREDIT.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS CREDIT.GET.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            KEY IS ASCENDING DATE
            SET SELECTION THRU CRGET.C
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS CRPAYC

      OWNER IS CREDIT.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS CREDIT.PAY.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            KEY IS ASCENDING DATE
            SET SELECTION THRU CRPAYC
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BDBTC

      OWNER IS BUDGET.DATE.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BUDGET.TOTAL.C
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ACCOUNT.NO
            SET SELECTION THRU BDBTC
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BTBLC

      OWNER IS BUDGET.TOTAL.C
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.I.C
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LEVEL.NO
            SET SELECTION THRU BTBLC
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BLABLBC

      OWNER IS BUDGET.LEVEL.I.C
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.Z.C
          MANDATORY MANUAL
          KEY IS ASCENDING LEVEL.NO
          SET SELECTION THRU BLABLBC
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PBONDC

      OWNER IS PAYABLES.C
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BOND.DETAIL.C
          MANDATORY MANUAL
          KEY IS ASCENDING ENDORSE.DATE
          SEARCH KEY IS RECEIV.DATE
          SET SELECTION THRU PBONDC
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS RBONDC

      OWNER IS RECEIVABLES.C
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BOND.DETAIL.C
          MANDATORY MANUAL
          KEY IS ASCENDING ENDORSE.DATE
          SEARCH KEY IS RECEIV.DATE
          SET SELECTION THRU PBONDC
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLBSC

      OWNER IS JOURNAL.ACCNT.C
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BANKS.C
          MANDATORY MANUAL
          KEY IS ASCENDING BANK.CODE
          SET SELECTION THRU JLBSC
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS JLCTC

        OWNER IS JOURNAL.ACCNT.C
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS CREDIT.C
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JLBSC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLPSC

        OWNER IS JOURNAL.ACCNT.C
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PAYABLES.C
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JLPSC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLRSC

        OWNER IS JOURNAL.ACCNT.C
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS RECEIVABLES.C
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JLRSC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHBLLC

        OWNER IS MONTH.H.C
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS BUDGET.LEVEL.Z.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MHBLLC
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS JAPLAC
     OWNER IS JOURNAL.ACCNT.C
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS PL.ACCOUNT.C
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JAPLAC
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS LABSAC
     OWNER IS LEDGER.ACCNT.C
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS BS.ACCOUNT.C
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU LABSAC
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNCRTC
     OWNER IS BANKS.C
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS CREDIT.C
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU BNCRTC
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNILCC
     OWNER IS BANKS.C
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS IMPORT.LICENCE.C
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU BNILCC
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BNIPRC

        OWNER IS BANKS.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS IMPORT.PREP.C
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNIPRC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNCDPC

        OWNER IS BANKS.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CERTF.DEPOSIT.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU BNCDPC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PERSEDC

        OWNER IS PERSONNEL.LIST.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EDUCATION.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSEDC
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSREFC

        OWNER IS PERSONNEL.LIST.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS REFERENCES
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSREFC
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS PERSPSC
        OWNER IS PERSONNEL.LIST.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PREVIOUS.WORK.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSPWC
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSFIC
        OWNER IS PERSONNEL.LIST.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS FAMILY.INFO.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSFIC
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSEXC
        OWNER IS PERSONNEL.LIST.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EXPERIENCE.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSEXC
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSAWC
        OWNER IS PERSONNEL.LIST.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ACTUAL.WORK.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSAWC
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS DEPTAWC

        OWNER IS DEPT.STATISTICS.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ACTUAL.WORK
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU DEPTAWC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PERSPRC

        OWNER IS PERSONNEL.LIST.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PAY.ROLL.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSPRC
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DFPTMFC

        OWNER IS DEPT.STATISTICS.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MONTH.F.C
            MANDATORY ATUOMATIC
            LINKED TO OWNER
            SET SELECTION THRU DEPTMFC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MFPRC

        OWNER IS MONTH.F.C
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PLAN.REAL.C
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MFPRC
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS JOURFAC

      OWNER IS JOURNAL.ACCOUNT.C
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS FIXED.ASSETS.C
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JOURFAC
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JOURPRC

      OWNER IS JOURNAL.ACCOUNT.C
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PAY.ROLL.C
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JOURPRC
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS WR

      OWNER IS WAREHOUSE.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS REMAINDER.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU WR
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PR

      OWNER IS PART.ID.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS REMAINDER.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PR
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS RMA

        OWNER IS PART.ID.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MONTH.A.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING YEAR
            SEARCH KEY IS MONTH
            SET SELECTION THRU RMA
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PRB

        OWNER IS PART.ID.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS R.B.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PRB
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SRB

        OWNER IS SUPPLIER.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS R.B.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU SRB
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MAOR

        OWNER IS MONTH.A.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS ORDER.REAL.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING DATE
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU MAOR
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MAOP
        OWNER IS MONTH.A.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS ORDER.PLAN.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING DEMAND.NO
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU MAOR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MAOS
        OWNER IS MONTH.A.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS SUPPLY.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING WORKSITE.CODE
            SET SELECTION THRU MAOS
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PDMAT
        OWNER IS PRODUCTION DATA.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MATERIAL.DATA.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PDMAT
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PDMACH
        OWNER IS PRODUCTION.DATA.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MACHINE.DATA.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PDMACH
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS PDMAN
        OWNER IS PRODUCTION.DATA.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MANPOWER.DATA.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PDMAN
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS RP
        OWNER IS REGION
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PROJECT
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU RP
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PW
        OWNER IS PROJECT
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS WORKSITE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PW
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS WU
        OWNER IS WORKSITE
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS DETAIL
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU WU
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS UD

      OWNER IS UNIT
            ORDER IS PERMANENT IMMATERIAL

      MEMBER IS DETAIL
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU UD
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS DW

      OWNER IS DETAIL
            ORDER IS PERMANENT IMMATERIAL

      MEMBER IS WORK
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU DW
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS WMATU

      OWNER IS WORK
            ORDER IS PERMANENT IMMATERIAL

      MEMBER IS MATERIAL.USAGE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU WMATU
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS WMACU

      OWNER IS WORK
            ORDER IS PERMANENT IMMATERIAL

      MEMBER IS MACHINE.USAGE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU WMACU
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS WMANU

        OWNER IS WORK
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS MANPOWER.USAGE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU WMANU
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS WPROD

        OWNER IS WORK
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS PRODUCTION.DATA.CR
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU WPROD
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS WMB

        OWNER IS PROJECT
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS MONTH.B.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU WMB
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS SMATU

        OWNER IS SUPPLY.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS MATERIAL.USAGE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU SMATU
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS SOP

        OWNER IS SUPPLIER.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ORDER.PLAN.CR
            MANDATORY MANUAL
            KEY IS DEMAND.NO
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU SOP
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SOR

        OWNER IS SUPPLIER.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ORDER.REAL.CR
            MANDATORY AUTOMATIC
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU SOR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS OPOR

        OWNER IS ORDER.PLAN.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS ORDER.REAL.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING DATE
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU OPOR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS ILLDCR

        OWNER IS IMPORT.LICENSE.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS LICENSE.DETAIL.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING MATL.CODE
            SET SELECTION THRU ILLD.CR
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS LDIPCR

      OWNER IS LICENSE.DETAIL.CR
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS IMPORT.PREP.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU LDIPCR
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS LDIRCR

      OWNER IS LICENSE.DETAIL.CR
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS IMPORT.REAL.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU LDIRCR
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS IPIRCR

      OWNER IS IMPORT.PREP.CR
          ORDER IS PERMANENT IMMATERIAL

      MEMBER IS IMPORT.REAL.CR
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU IPIRCR
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BTBFCR

      OWNER IS BS.TOTAL.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BS.FORMAT.CR
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU BTBFCR
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS BFBACR
        OWNER IS BS.FORMAT.CR
              ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS BS.QCCOUNT.CR
              MANDATORY AUTOMATIC
              KEY IS ASCENDING LINE.NO
              SET SELECTION THRU BFBACR
              OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRPFCR
        OWNER IS PL.RESULT.CR
              ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PL.FORMAT.CR
              MANDATORY AUTOMATIC
              KEY IS ASCENDING LINE.NO
              SET SELECTION THRU PRPFCR
              OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PFPACR
        OWNER IS PL.FORMAT.CR
              ORDER IS PERMANENT BY DEFINED KEYS

        MEMBER IS PL.ACCOUNT.CR
              MANDATORY AUTOMATIC
              KEY IS ASCENDING LINE.NO
              SET SELECTION THRU PFPACR
              OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS LASACR
        OWNER IS LEDGER.ACCNT.CR
              ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS SUBSDR.ACCNT.CR
              MANDATORY AUTOMATIC
              KEY IS ASCENDING ACCOUNT.NO
              SET SELECTION THRY LASACR
              OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS SAJACR

        OWNER IS SUBSDR.ACCNT.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS JOURNAL.ACCNT.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ACCOUNT.NO
            SET SELECTION THRU SAJACR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JAMHCR

        OWNER IS JOURNAL.ACCNT.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS MONTH.H.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING YEAR
            SEARCH KEY IS MONTH
            SET SELECTION THRU JAMHCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHJCR

        OWNER IS MONTH.H.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS JOURNAL.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING DATE
            SEARCH KEY IS TRANSACT.NO
            SET SELECTION THRU MHJCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS CRGETCR

        OWNER IS CREDIT.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.GET.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            KEY IS ASCENDING DATE
            SET SELECTION THRU CRGETCR
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS CRPAYCR

      OWNER IS CREDIT.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS CREDIT.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          KEY IS ASCENDING DATE
          SET SELECTION THRU CRPAYCR
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BDBTCR

      OWNER IS BUDGET.DATE.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BUDGET.TOTAL.CR
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ACCOUNT.NO
          SET SELECTION THRU BDBTCR
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BTBLCR

      OWNER IS BUDGET.TOTAL.CR
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.I.CR
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LEVEL.NO
          KEY SELECTION THRU BTBLCR
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BLABLBCR

      OWNER IS BUDGET.LEVEL.I.CR
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.Z.CR
          MANDATORY MANUAL
          KEY IS ASCENDING LEVEL.NO
          SET SELECTION THRU BLABLBCR
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PBONDCR

     OWNER IS PAYABLES.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS BOND.DETAIL.CR
          MANDATORY MANUAL
          KEY IS ASCENDING ENDORSE.DATE
          SEARCH KEY IS RECEIV.DATE
          SET SELECTION THRU PBONDCR
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS RBONDCR

     OWNER IS RECEIVABLES.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS BOND.DETAIL.CR
          MANDATORY MANUAL
          KEY IS ASCENDING ENDORSE.DATE
          SEARCH KEY IS RECEIV.DATE
          SET SELECTION THRU RBONDCR
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLBSCR

     OWNER IS JOURNAL.ACCNT.CR
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS BANKS.CR
          MANDATORY MANUAL
          KEY IS ASCENDING BANK.CODE
          SET SELECTION THRU JBLSCR
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLCTCR

     OWNER IS JOURNAL.ACCNT.CR
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS CREDIT.CR
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JLBSCR
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS JLPSCR
        OWNER IS JOURNAL.ACCNT.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS
        MEMBER IS PAYABLES.CR
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JLPSCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLRSCR
        OWNER IS JOURNAL.ACCNT.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS
        MEMBER IS RECEIVABLES.CR
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JLRSCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHBLLCR
        OWNER IS MONTH.H.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS
        MEMBER IS BUDGET.LEVEL.Z.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MHBLLCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JAPLACR
        OWNER IS JOURNAL.ACCNT.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS
        MEMBER IS PL.ACCOUNT.CR
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JAPLACR
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS LABSACR
     OWNER IS LEDGER.ACCNT.CR
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS BS.QCCOUNT.CR
         MANDATORY MANUAL
         LINKED TO OWNER
         SET SELECTION THRU LABSACR
         OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNCRTCR
     OWNER IS BANKS.CR
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS CREDIT.CR
         MANDATORY MANUAL
         LINKED TO OWNER
         SET SELECTION THRU BNCRTCR
         OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNILCCR
     OWNER IS BANKS.CR
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS IMPORT.LICENSE.CR
         MANDATORY MANUAL
         LINKED TO OWNER
         SET SELECTION THRU BNILCCR
         OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNIPRCR
     OWNER IS BANKS.CR
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS IMPORT.PREP.CR
         MANDATORY MANUAL
         LINKED TO OWNER
         SET SELECTION THRU BNIPRCR
         OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BNCDPCR

        OWNER IS BANKS.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CERTF.DEPOSIT.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU BNCDPCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PERSEDCR

        OWNER IS PERSONNEL.LIST.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EDUCATION.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSEDCR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSREFCR

        OWNER IS PERSONNEL.LIST.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS REFERENCES.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSREFCR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSPWCR

        OWNER IS PERSONNEL.LIST.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PREVIOUS.WORK.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSPWCR
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS PERSFICR

        OWNER IS PERSONNEL.LIST.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS FAMILY.INFO.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSFICR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSEXCR

        OWNER IS PERSONNEL.LIST.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EXPERIENCE.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSEXCR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSAWCR

        OWNER IS PERSONNEL.LIST.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ACTUAL.WORK.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSAWCR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DEPTAWCR

        OWNER IS DEPT.STATISTICS.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ACTUAL.WORK.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU DEPTAWCR
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PERSPRCR

        OWNER IS PERSONNEL.LIST.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PAY.ROLL.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSPRCR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DEPTMFCR

        OWNER IS DEPT.STATISTICS.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MONTH.F.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU DEPTMFCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MFPRCR

        OWNER IS MONTH.F.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        OWNER IS PLAN.REAL.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MFPRCR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MPUSECR

        OWNER IS MACHINE.LIST.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PREVIOUS.USE.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING REGION.CODE
            SET SELECTION THRU MPUSECR
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS MMONGCR
        OWNER IS MACHINE.LIST.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MONTH.G.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING YEAR
            SEARCH KEY IS MONTH
            SET SELECTION THRU MMONGCR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MGPUSCR
        OWNER IS MONTH.G.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PRESENT.USE.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING WORKSITE.CODE
            SET SELECTION THRU MGPUSCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MGPLANCR
        OWNER IS MONTH.G.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PLAN.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING WORKSITE.CODE
            SET SELECTION THRU MGPLANCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MMPRLCR
        OWNER IS MONTH.G.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS MACH.PLAN.REAL.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING PLAN.BEGIN.DATE
            SET SELECTION THRU MMPRLCR
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MLFAILCR

     OWNER IS MACHINE.LIST.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS FAILURE.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MLFAILCR
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MLMDTLCR

     OWNER IS MACHINE.LIST.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS MAINT.DETAIL.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MLMDTLCR
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MLMPLANCR

     OWNER IS MACHINE.LIST.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS MAINT.PLAN.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MLMPLANCR
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SPDSPLCR

     OWNER IS SPARE.PARTS.CR
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS DEMAND.SUPPLY.CR
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU SPDSPLCR
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS SPRNCR

        OWNER IS SPARE.PARTS.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS R.N.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU SPRNCR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SUPLRNCR

        OWNER IS SUPPLIER.MACH.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS R.N.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU SUPLRNCR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SPOSCR

        OWNER IS SPARE.PARTS.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ORDER.SHIP.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ORDER.DATE
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU SPOSCR
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SPLOSCR

        OWNER IS SUPPLIER.MACH.CR
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ORDER.SHIP.CR
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ORDER.DATE
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU SPLOSCR
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MPLSPCR

        OWNER IS MAINT.PLAN.CR
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS SPARE.PARTS.CR
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU MPLSPCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JOURFACR

        OUWNER IS JOURNAL.ACCOUNT.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS FIXED.ASSETS.CR
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JOURFACR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JOURPRCR

        OWNER IS JOURNAL.ACCOUNT.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PAY.ROLL.CR
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JOURPRCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JAEGRVCR

        OWNER IS JOURNAL.ACCNT.CR
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS ENGRAVE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SEARCH KEY IS REPORT.NO
            SET SELECTION THRU JAEGRVCR
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BLEGRVCR

        OWNER IS BUDGET.LEVEL.CR
             ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS ENGRAVE
             MANDATORY AUTOMATIC
             LINKED TO OWNER
             SEARCH KEY IS REPORT.NO
             SET SELECTION THRU JAEGRVCR
             OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS ENGVWK

        OWNER IS ENGRAVE
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS WORK
             MANDATORY AUTOMATIC
             LINKED TO OWNER
             SET SELECTION THRY ENGCWK
             OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MBENGV

        OWNER IS MONTH.B.CR
             ORDER IS PERMANENT IMMATERIAL

        MEMBER IS ENGRAVE
             MANDATORY AUTOMATIC
             LINKED TO OWNER
             SET SELECTION THRU MBENGV
             OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS ENGVML

        OWNER IS ENGRAVE
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MACHINE.LIST.CR
             MANDATORY MANUAL
             LINKED TO OWNER
             SET SELECTION THRU ENGVML
             OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS ENGVORL

        OWNER IS ENGRAVE
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ORDER.REAL.CR
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU ENGVORL
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MUMLCR

        OWNER IS MACHINE.USAGE
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS MACHINE.LIST.CR
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU MUMLCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MUPRCR

        OWNER IS MANPOWER.USAGE
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS PLAN.REAL.CR
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MUPRCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRCT

        OWNER IS PART.LIST.T
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS R.C.T
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRY PRCT
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS SRCT

     OWNER IS SUPPLIER.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS R.C.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU SRCT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PLRET

     OWNER IS PART.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS R.E.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING MONTH
          SET SELECTION THRU PLRET
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS REDT

     OWNER IS R.E.T
          ORDER IS PERMANENT BY DEFINED KEYS

     MEMBER IS DEMAND.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DEMAND.NO
          SEARCH KEY IS CUSTOMER.CODE
          SET SELECTION THRU REDT
          OWNER IDENTIFIED BY CURRENT OF RECORDS


SET NAME IS REST

     OWNER IS R.E.T
          ORDER IS PERMANENT BY DEFINED KEYS

     MEMBER IS SELL.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DELIVER.DATE
          SEARCH KEY IS CUSTOMER.CODE
          SET SELECTION THRU REST
          OWNER IDENTIFIED BY CURRENT OF RECORDS
```

SET NAME IS PLASMT

      OWNER IS PART.LIST.T
         ORDER IS PERMANENT BY DATA BASE KEY

      MEMBER IS AVG.STOCK.MONTH.T
         MANDATORY AUTOMATIC
         KEY IS ASCENDING MONTH
         SET SELECTION THRU PLASM
         OWNER IDENTIFIED BY DATA BASE KEY

SET NAME IS PLOPT

      OWNER IS AVG.STOCK.MONTH.T
         ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS ORDER.PLAN.T
         MANDATORY AUTOMATIC
         KEY IS ASCENDING CONTRACT.NO
         SEARCH KEY IS SUPPLIER.CODE
         SET SELECTION THRU PLOPT
         OWNER IDENTIFIED BY CURRENT OF SET

SET NAME IS PLORT

      OWNER IS ORDER.PLAN.T
         ORDER IS PERMANENT BY DEFINED KEYS

      MEMBER IS ORDER.REAL.T
         MANDATORY AUTOMATIC
         KEY IS ASCENDING DATE
         SEARCH KEY IS SUPPLIER.CODE, INVOICE.NO
         SET SELECTION THRU PLORT
         OWNER IDENTIFIED BY CURRENT OF SET

SET NAME IS ORQCTT

      OWNER IS ORDER.REAL.T
         ORDER IS PERMANENT BY DEFINED KEYS

      MEMBER IS QC.TEST.T
         MANDATORY AUTOMATIC
         LINKED TO OWNER
         SET SELECTION THRU ORQCTT
         OWNER IDENTIFIED BY CURRENT OF SET

```
SET NAME IS TDQCTT
      OWNER IS TEST.DATA.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS QC.TEST.T
          MANDATORY AUTOMATIC              .
          LINKED TO OWNER
          SET SELECTION THRU TDQCTT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PLMZT
      OWNER IS PART.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS MONTH.Z.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING MONTH
          SET SELECTION THRU PLMZT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MZSPT
      OWNER IS MONTH.Z.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS SUPPLY.PLAN.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DEPT.CODE
          SET SELECTION THRU MZSPT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS SPSRT
      OWNER IS SUPPLY.PLAN.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS SUPPLY.REAL.T
          MANDATORY MANUAL
          KEY IS ASCENDING DATE
          SEARCH KEY IS DEPT.CODE
          SET SELECTION THRU SPSRT
          ONWER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MZPPT

        OWNER IS MONTH.Z.T
            ORDER IS PERMANENT BY DEFINED KEYS

        MEMBER IS PRODUCTION.PLAN.T
            MANDATORY AUTOMATIC
            KEY IS ASCENDING DEPT.CODE
            SET SELECTION THRU MZPPT
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PPPRT

        OWNER IS PRODUCTION.PLAN.T
            ORDER IS PERMANENT BY DEFINED KEYS

        MEMBER IS PRODUCTION.REAL.T
            MANDATORY AUTOMATIC
            KEY IS ASCENDING DATE
            SEARCH KEY IS DEPT.CODE
            SET SELECTION THRU PPPRT
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS SUPORT

        OWNER IS SUPPLIER.T
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ORDER.REAL.T
            MANDATORY AUTOMATIC
            KEY IS ASCENDING DATE
            SEARCH KEY IS SUPPLIER.CODE, INVOICE.NO
            SET SELECTION THRU SUPOR.T
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SUPOPT

        OWNER IS SUPPLIER.T
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ORDER.PLAN.T
            MANDATORY AUTOMATIC
            KEY IS ASCENDING CONTRACT.NO
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU SUPOPT
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS DST

      OWNER IS DEMAND.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS SELL.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DELIVERY.DATE
          SEARCH KEY IS CUSTOMER.CODE.
          SET SELECTION THRU DST
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PLQCT

      OWNER IS PART.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS QC.STATISTICS.T
          MANDATORY AUTOMATIC
          KEY IS TEST.CODE
          SET SELECTION THRU PLQCT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MP

      OWNER IS MODEL
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PROCESS
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PMATU

      OWNER IS PROCESS
          ORDER IS PERMANENT IMMATERIAL

      MEMBER IS MATERIAL.USAGE
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PMATU
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PMANU
        OWNER IS PROCESS
            ORDER IS PERMANENT IMMATERIAL
        MEMBER IS MANPOWER.USAGE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PMANU
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PMACHU
        OWNER IS PROCESS
            ORDER IS PERMANENT IMMATERIAL
        MEMBER IS MACHINE.USAGE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PMANU
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MUSUB
        OWNER IS MATERIAL.USAGE
            ORDER IS PERMANENT IMMATERIAL
        MEMBER IS SUBPARTS
            MANDATORY AUTOMATIC
            KEY IS SUBPART.CODE
            SET SELECTION THRU MUSUB
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MUOPP
        OWNER IS MATERIAL.USAGE
            ORDER IS PERMANENT IMMATERIAL
        MEMBER IS OPTIONAL.PARTS
            MANDATORY AUTOMATIC
            KEY IS OPTIONAL.PART.CODE
            SET SELECTION THRU MUOPP
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS OPPL

      OWNER IS OPTIONAL.PARTS
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PART.LIST.T
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU MUOPP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS SUBPL

      OWNER IS SUBPARTS
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PART.LIST.T
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU SUBPL
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MUPL

      OWNER IS MATERIAL.USAGE
          ORDER IS PERMANENT IMMATERIAL

      MEMBER IS PART.LIST.T
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU MUPL
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRPR

      OWNER IS PRODUCTION.REAL.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PROCESS
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PRPR
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS ILLDT

        OWNER IS IMPORT.LICENSE.T
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS LICENSE.DETAIL.T
            MANDATORY AUTOMATIC
            KEY IS ASCENDING MATL.CODE
            SET SELECTION THRU ILLDT
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS LDIPT

        OWNER IS LICENSE.DETAIL.T
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS IMPORT.PREP.T
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU LDIPT
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS LDIRT

        OWNER IS LICENSE.DETAIL.T
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS IMPORT.REAL.T
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU LDIRT
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS IPIRT

        OWNER IS IMPORT.PREP.T
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS IMPORT.REAL.T
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU IPIRT
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BTBFT
      OWNER IS BS.TOTAL.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS BS.FORMAT.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU BTBFT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BFBAT
      OWNER IS BS.FORMAT.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS
      MEMBER IS BS.ACCOUNT.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU BFBAT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRPFT
      OWNER IS PL.RESULT.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS PL.FORMAT.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU PRPFT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PFPAT
      OWNER IS PL.FORMAT.T
          ORDER IS PERMANENT BY DEFINED KEYS
      MEMBER IS PL.ACCOUNT.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU PFPAT
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS LASAT

     OWNER IS LEDGER.ACCNT.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS SUBSDR.ACCNT.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ACCOUNT.NO
          SET SELECTION THRU LASAT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SAJAT

     OWNER IS SUBSDR.ACCNT.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS JOURNAL.ACCNT.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ACCOUNT.NO
          SET SELECTION THRU SAJAT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JAMHT

     OWNER IS JOURNAL.ACCNT.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS MONTH.H.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING YEAR
          SEARCH KEY IS MONTH
          SET SELECTION THRU JAMHT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHJT

     OWNER IS MONTH.HT.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS JOURNAL.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DATE
          SEARCH KEY IS TRANSACT.NO
          SET SELECTION THRU MHJT
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS CRGETT

      OWNER IS CREDIT.T
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS CREDIT.GET.T
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            KEY IS ASCENDING DATE
            SET SELECTION THRU CRGETT
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS CRPAYT

      OWNER IS CREDIT.T
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS CREDIT.PAY.T
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            KEY IS ASCENDING DATE
            SET SELECTION THRU CRPAYT
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BDBTT

      OWNER IS BUDGET.DATE.T
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BUDGET.TOTAL.T
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ACCOUNT.NO
            SET SELECTION THRU BDBTT
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BTBLT

      OWNER IS BUDGET.TOTAL.T
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.I.T
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LEVEL.NO
            SET SELECTION THRU BTBLT
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BLABLBT

      OWNER IS BUDGET.LEVEL.I.T
         ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.Z.T
         MANDATORY MANUAL
         KEY IS ASCENDING LEVEL.NO
         SET SELECTION THRU BLABLBT
         OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PBONDT

      OWNER IS PAYABLES.T
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BOND.DETAIL.T
         MANDATORY MANUAL
         KEY IS ASCENDING ENDORSE.DATE
         SEARCH KEY IS RECEIV.DATE
         SET SELECTION THRU PBONDT
         OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS RBONDT

      OWNER IS RECEIVABLES.T
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BOND.DETAIL.T
         MANDATORY MANUAL
         KEY IS ASCENDING ENDORSE.DATE
         SEARCH KEY IS RECEIV.DATE
         SET SELECTION THRU RBONDT
         OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLBST

      OWNER IS JOURNAL.ACCNT.T
         ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BANKS.T
         MANDATORY MANUAL
         KEY IS ASCENDING BANK.CODE
         SET SELECTION THRU JLBST
         OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS JLCTT

        OWNER IS JOURNAL.ACCNT.T
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS CREDIT.T
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JLBST
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLPST

        OWNER IS JOURNAL.ACCNT.T
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PAYABLES.T
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JLPST
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLRST

        OWNER IS JOURNAL.ACCNT.T
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS RECEIVABLES.T
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JLRST
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHBLLT

        OWNER IS MONTH.H.T
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS BUDGET.LEVEL.Z.T
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MHBLLT
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS JAPLAT

        OWNER IS JOURNAL.ACCNT.T
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PL.ACCOUNT.T
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JAPLAT
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS LABSAT

        OWNER IS LEDGER.ACCNT.T
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BS.ACCOUNT.T
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU LABSAT
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNCRTT

        OWNER IS BANKS.T
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.T
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNCRTT
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNILCT

        OWNER IS BANKS.T
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS IMPORT.LICENSE.T
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNILCT
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BNIPRT

      OWNER IS BANKS.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS IMPORT.PREP.T
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU BNIPRT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNCDPT

      OWNER IS BANKS.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS CERTF.DEPOSIT.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU BNCDPT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS DDDCT

      OWNER IS DEPT.DATA.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS DEPT.COST.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU DDDCT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DCMCT

      OWNER IS DEPT.COST.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS MODEL.COST.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU DCMCT
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MEMCT

      OWNER IS MONTH,E,T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS MODEL.COST.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MEMCT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PERSEDT

      OWNER IS PERSONNEL.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS EDUCATION.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PERSEDT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSREFT

      OWNER IS PERSONNEL.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS REFERENCES.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PERSREFT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSPWT

      OWNER IS PERSONNEL.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PREVIOUS.WORK.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PERSPWT
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS PERSFIT

      OWNER IS PERSONNEL.LIST.T
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS FAMILY.INFO.T
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU PERSFIT
           OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSEXT

      OWNER IS PERSONNEL.LIST.T
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS EXPERIENCE.T
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU PERSEXT
           OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSAWT

      OWNER IS PERSONNEL.LIST.T
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS ACTUAL.WORK.T
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU PERSAWT
           OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DEPTAWT

      OWNER IS DEPT.STATISTICS.T
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS ACTUAL.WORK.T
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU DEPTAWT
           OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PERSPRT

      OWNER IS PERSONNEL.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PAY.ROLL.T
          MANDATORY AUTOMATIC
          LINKED TO WONER
          SET SELECTION THRU PERSPRT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DEPTMFT

      OWNER IS DEPT.STATISTICS.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS MONTH.F.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU DEPTMFT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MFPRT

      OWNER IS MONTH.F.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PLAN.REAL.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MFPRT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MPUSET

      OWNER IS MACHINE.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PREVIOUS.USE.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING REGION.CODE
          SET SELECTION THRU MPUSET
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS MMONGT

     OWNER IS MACHINE.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS MONTH.G.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING YEAR
          SEARCH KEY IS MONTH
          SET SELECTION THRU MMONGT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MGPUST

     OWNER IS MONTH.G.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS PRESENT.USE.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING WORKSITE.CODE
          SET SELECTION THRU MGPUST
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MGPLANT

     OWNER IS MONTH.G.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS PLAN.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING WORKSITE.CODE
          SET SELECTION THRU MGPLANT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MMPRLT

     OWNER IS MONTH.G.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS MACH.PLAN.REAL.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING PLAN.BEGIN.DATE
          SET SELECTION THRU MMPRLT
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MLFAILT

      OWNER IS MACHINE.LIST.T
          ORDER IS PERMANENT SORTED DATA BASE KEY

      MEMBER IS FAILURE.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MLFAILT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MLMDTLT

      OWNER IS MACHINE.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS MAINT.DETAIL.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MLMDTLT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MLMPLANT

      OWNER IS MACHINE.LIST.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS MAINT.PLAN.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MLMPLANT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SPDSPLT

      OWNER IS SPARE.PARTS.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS DEMAND.SUPPLY.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU SPDSPLT
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS SPRNT

     OWNER IS SPARE.PARTS.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS R.N.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU SPRNT
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SUPLRNT

     OWNER IS SUPPLIER.MACH.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS R.N.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU SUPLRNT
          OWNER IDENTIFED BY DATA BASE KEY


SET NAME IS SPOST

     OWNER IS SPARE.PARTS.T
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS ORDER.SHIP.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ORDER.DATE
          SEARCH KEY IS SUPPLIER.CODE
          SET SELECTION THRU SPOST
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SPLOST

     OWNER IS SUPPLIER.MACH.I
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS ORDER.SHIP.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ORDER.DATE
          SEARCH KEY IS SUPPLIER.CODE
          SET SELECTION THRU SPLOST
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MPLSDT
       OWNER IS MAINT.PLAN.T
           ORDER IS PERMANENT IMMATERIAL

       MEMBER IS SPARE.PARTS.T
           MANDATORY MANUAL
           LINKED TO OWNER
           SET SELECTION THRU MPLSPT
       OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JOURFAT
       OWNER IS JOURNAL.ACCOUNT.T
           ORDER IS PERMANENT SORTED BY DEFINED KEYS

       MEMBER IS FIXED.ASSETS.T
           MANDATORY MANUAL
           LINKED TO OWNER
           SET SELECTION THRU JOURFAT
           OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JOURPRT
       OWNER IS JOURNAL.ACCOUNT.T
           ORDER IS PERMANENT SORTED BY DEFINED KEYS

       MEMBER IS PAY.ROLL.T
           MANDATORY MANUAL
           LINKED TO OWNER
           SET SELECTION THRU JOURPRT
           OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS DDPLT
       OWNER IS DEPT.DATA.T
           ORDER IS PERMANENT IMMATERIAL

       MEMBER IS PRODUCTION.REAL.T
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU DDPLT
           OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS DCFASTT

      OWNER IS DEPT.COST.T
          ORDER IS PERMANENT IMMATERIAL

      MEMBER IS FIXED.ASSETS.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU DCFASTT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRMLPT

      OWNER IS PRODUCTION.REAL.T
          ORDER IS PERMANENT IMMATERIAL

      MEMBER IS MACH.PLAN.REAL.T
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU PRMLPT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MUMLTT

      OWNER IS MACHINE.USAGE.T
          ORDER IS PERMANENT IMMATERIAL

      MEMBER IS MACHINE.LIST.T
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU MUMLTT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MUSDSTT

      OWNER IS MANPOWER.USAGE.T
          ORDER IS PERMANENT IMMATERIAL

      MEMBER IS DEPT.STATISTICS.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MUSDSTT
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MDCRPT
      OWNER IS MODEL.COST.T
          ORDER IS PERMANENT IMMATERIAL
      MEMBER IS PRODUCTION.REAL.T
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU MDCRPT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRPRLT
      OWNER IS PRODUCTION.REAL.T
          ORDER IS PERMANENT IMMATERIAL
      MEMBER IS PLAN.REAL.T
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU PRPRLT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BUDDCST
      OWNER IS BUDGET.LEVEL.T
          ORDER IS PERMANENT SORTED BY DEFINED KEYS
      MEMBER IS DEPT.COST.T
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU BUDDCST
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PLRFP
      OWNER IS PART.LIST.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS R.F.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PLRFP
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS SRFP

     OWNER IS SUPPLIER.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS R.F.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU SRFP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PLRHP

     OWNER IS PART.LIST.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS R.H.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING MONTH
          SET SELECTION THRU PLRHP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS RHDP

     OWNER IS R.H.P
          ORDER IS PERMANENT BY DEFINED KEYS

     MEMBER IS DEMAND.T
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DEMAND.NO
          SEARCH KEY IS CUSTO:ER.CODE
          SET SELECTION THRU RHDP
          OWNER IDENTIFIED BY CURRENT OF RECORDS


SET NAME IS RHSP

     OWNER IS R.H.P
          ORDER IS PERMANENT BY DEFINED KEYS

     MEMBER IS SELL.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DELIVERY.DATE
          SEARCH KEY IS CUSTOMER.CODE
          SET SELECTION THRU RHSP
          OWNER IDENTIFIED BY CURRENT OF RECORDS
```

```
SET NAME IS PASMP
      OWNER IS PART.LIST.P
          ORDER IS PERMANENT BY DATA BASE KEY
      MEMBER IS AVG.STOC.MONTH.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING MONTH
          SET SELECTION THRU PASMP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS ASMOPP
      OWNER IS AVG.STOCK.MONTH.P
          ORDER IS PERMANENT BY DEFINED KEYS
      MEMBER IS ORDER.PLAN.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING CONTRACT.NO
          SEARCH KEY IS SUPPLIER.CODE
          SET SELECTION THRU ASMOPP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS ASMORP
      OWNER IS ORDER.PLAN.P
          ORDER IS PERMANENT BY DEFINED KEYS
      MEMBER IS ORDER.REAL.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DATE
          SEARCH KEY IS SUPPLIER.CODE, INVOICE.NO
          SET SELECTION THRU ASMORP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS ORDRQCP
      OWNER IS ORDER.REAL.P
          ORDER IS PERMANENT BY DEFINED KEYS
      MEMBER IS QC.TEST.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU ORDRQCP
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS QCDP
      OWNER IS TEST.DATA.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS QC.TEST.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU QCDP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PLMXP
      OWNER IS PART.LIST.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS MONTH.X.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING MONTH
          SET SELECTION THRU PLMXP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MXSUPP
      OWNER IS MONTH.X.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS
      MEMBER IS SUPPLY.PLAN.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DEPT.CODE
          SET SELECTION THRU MXSUPP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS SUPSURP
      OWNER IS SUPPLY.PLAN.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS
      MEMBER IS SUPPLY.REAL.P
          MANDATORY MANUAL
          KEY IS ASCENDING DATE
          SEARCH KEY IS DEPT.CODE
          SET SELECTION THRU SUPSURP
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MXPPP

      OWNER IS MONTH.X.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PRODUCTION.PLAN.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DEPT.CODE
          SET SELECTION THRU MXPPP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRODPRP

      OWNER IS PRODUCTION.PLAN.P
          ORDER IS PERMANENT BY DEFINED KEYS

      MEMBER IS PRODUCTION.REAL.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DATE
          SEARCH KEY IS DEPT.CODE
          SET SELECTION THRU PRODPRP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS SPPORP

      OWNER IS SUPPLIER.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS ORDER.REAL.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING CONTRACT.NO
          SEARCH KEY IS SUPPLIER.CODE
          SET SELECTION THRU SPPOPP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DEMSELP

      OWNER IS DEMAND.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS SELL DEMSEL.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DELIVERY.DATE
          SEARCH KEY IS CUSTOMER.CODE
          SET SELECTION THRU DEMSELP
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS RECPP
        OWNER IS RECIPE
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS PRODUCTION.PHASE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU RECPP
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PPMAT
        OWNER IS PRODUCTION.PHASE
            ORDER IS PERMANENT IMMATERIAL
        MEMBER IS MATERIAL.USAGE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PPMAT
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PPMAN
        OWNER IS PRODUCTION.PHASE
            ORDER IS PERMANENT IMMATERIAL
        MEMBER IS MANPOWER.USAGE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PPMAN
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PPMAC
        OWNER IS PRODUCTION.PHASE
            ORDER IS PERMANENT IMMATERIAL
        MEMBER IS MACHINE.USAGE
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PPMAC
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PPQC
        OWNER IS PRODUCTION.PHASE
            ORDER IS PERMANENT IMMATERIAL
        MEMBER IS Q.CONTROL
            MANDATORY AUTOMATIC
            KEY IS ASCENDING TEST.CODE
            SET SELECTION THRU PPQC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS QCQCI
        OWNER IS Q.CONTROL
            ORDER IS PERMANENT SORTED BY DEFINED KEYS
        MEMBER IS QC.INFO
            MANDATORY AUTOMATIC
            KEY IS ASCENDING JOB.NO
            SET SELECTION THRU PPQC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS QCQCR
        OWNER IS Q.CONTROL
            ORDER IS PERMANENT SORTED BY DEFINED KEYS
        MEMBER IS QC.RESULTS
            MANDATORY AUTOMATIC
            KEY IS ASCENDING JOB.NO
            SET SELECTION THRU QCQCR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS QCRS
        OWNER IS QC.STATISTICS
            ORDER IS PERMANENT SORTED BY DATA BASE KEYS
        MEMBER IS QC.RESULTS
            MANDATORY AUTOMATIC
            KEY IS ASCENDING JOB.NO
            SET SELECTION THRU QCRS
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PPWIP
        OWNER IS QC.RESULTS
            ORDER IS PERMANENT BY DEFINED KEYS

        MEMBER IS W.I.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PPWIP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS QCPROD
        OWNER IS QC.INFO
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PRODUCTION.PHASE
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU QCPROD
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS RECPL
        OWNER IS RECIPE
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PART.LIST.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU RECPL
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MATUPL
        OWNER IS MATERIAL.USAGE
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS PART.LIST.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU MATUPL
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS QCIPL

        OWNER IS QC.INFO
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS PART.LIST.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU QCIPL
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS WIP

        OWNER IS W.I.P
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS PART.LIST.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU WIP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS ILLDP

        OWNER IS IMPORT.LICENSE.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS LICENSE.DETAIL.P
            MANDATORY AUTOMATIC
            KEY IS ASCENDING MATL.CODE
            SET SELECTION THRU ILLDP
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS LDIPP

        OWNER IS LICENSE.DETAIL.P
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS IMPORT.PREP.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU LDIPP
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS LDIRP

      OWNER IS LICENSE.DETAIL.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS IMPORT.REAL.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU KDIRP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS IPIRP

      OWNER IS IMPORT.PREP.P
          ORDER IS PERMANENT IMMATERIAL

      MEMBER IS IMPORT.REAL.P
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU IPIRP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BTBFP

      OWNER IS BS.TOTAL.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BS.FORMAT.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU BTBFP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BFBAP

      OWNER IS BS.FORMAT.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BS.ACCOUNT.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU BFBAP
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PRPFP

     OWNER IS PL.RESULT.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS PL.FORMAT.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU PRPFP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PFPAP

     OWNER IS PL.FORMAT.P
          ORDER IS PERMANENT BY DEFINED KEYS

     MEMBER IS PL.ACCOUNT.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU PFPAP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS LASAP

     OWNER IS LEDGER.ACCNT.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS SUBSDR.ACCNT.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ACCOUNT.NO
          SET SELECTION THRU LASAP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SAJAP

     OWNER IS SUBSDR.ACCNT.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS JOURNAL.ACCNT.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ACCOUNT.NO
          SET SELECTION THRU SAJAP
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS JAMHP

        OWNER IS JOURNAL.ACCN.TP
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS MONTH.H.P
            MANDATORY AUTOMATIC
            KEY IS ASCENDING YEAR
            SEARCH KEY IS MONTH
            SET SELECTION THRU JAMHP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHJP

        OWNER IS MONTH.H.P
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS JOURNAL.P
            MANDATORY AUTOMATIC
            KEY IS ASCENDING DATE
            SEARCH KEY IS TRANSACT.NO
            SET SELECTION THRU MHJP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS CRGETP

        OWNER IS CREDIT.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.GET.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            KEY IS ASCENDING DATE
            SET SELECTION THRU CRGETP
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS CRPAYP

        OWNER IS CREDIT.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.PAY.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            KEY IS ASCENDING DATE
            SET SELECTION THRU CRPAYP
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS BDBTP

      OWNER IS BUDGET.DATE.P
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BUDGET.TOTAL.P
           MANDATORY AUTOMATIC
           KEY IS ASCENDING ACCOUNT.NO
           SET SELECTION THRU BDBTP
           OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BTBLP

      OWNER IS BUDGET.TOTAL.P
           ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.I.P
           MANDATORY AUTOMATIC
           KEY IS ASCENDING LEVEL.NO
           SET SELECTION THRU BTBLP
           OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BLABLBP

      OWNER IS BUDGET.LEVEL.I.P
           ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.Z.P
           MANDATORY MANUAL
           KEY IS ASCENDING ELVEL.NO
           SET SELECTION THRU BLABLBP
           OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PBONDP

      OWNER IS PAYABLES.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BOND.DETAIL.P
           MANDATORY MANUAL
           KEY IS ASCENDING ENDORSE.DATE
           SEARCH KEY IS RECEIV.DATE
           SET SELECTION THRU PBONDP
           OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS RBONDP

      OWNER IS RECEIVABLES.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BOND.DETAIL.P
          MANDATORY MANUAL
          KEY IS ASCENDING ENDORSE.DATE
          SEARCH KEY IS RECEIV.DATE
          SET SELECTION THRU RBONDP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLBSP

      OWNER IS JOURNAL.ACCNT.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BANKS.P
          MANDATORY MANUAL
          KEY IS ASCENDING BANK.CODE
          SET SELECTION THRU JLBSP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLCTP

      OWNER IS JOURNAL.ACCNT.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS CREDIT.P
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JLBSP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLPSP

      OWNER IS JOURNAL.ACCNT.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PAYABLES.P
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JLPSP
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS JLRSP

      OWNER IS JOURNAL.ACCNT.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS RECEIVABLES.P
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JLRSP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHBLLP

      OWNER IS MONTH.H.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.Z.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MHBLLP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JAPLAP

      OWNER IS JOURNAL.ACCNT.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PL.ACCOUNT.P
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JAPLAP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS LABSAP

      OWNER IS LEDGER.ACCNT.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BS.ACCNT.P
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU LABSAP
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BNCRTP
        OWNER IS BANKS.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS CREDIT.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNCRTP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNILCP
        OWNER IS BANKS.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS IMPORT.LICENSE.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNILCP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNIPRP
        OWNER IS BANKS.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS IMPORT.PREP.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNIPRP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNCDPP
        OWNER IS BANKS.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS CERTF.DEPOSIT.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU BNCDPP
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS DDDCP
        OWNER IS DEPT.DATA.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS DEPT.COST.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU DDDCP
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DCMCP
        OWNER IS DEPT.COST.P
            ORDER IS PERMANENT SORTED BY DEFINED KEYS
        MEMBER IS MODEL.COST.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU DCMCP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MEMCP
        OWNER IS MONTH.E.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS MODEL.COST.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MEMCP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PERSEDP
        OWNER IS PERSONNEL.LIST.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS EDUCATION.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSEDP
            OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS PERSREFP

       OWNER IS PERSONNEL.LIST.P
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

       MEMBER IS REFERENCES.P
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU PERSREFP
           OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSPWP

       OWNER IS PERSONNEL.LIST.P
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

       MEMBER IS PREVIOUS.WORK.P
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU PERSPWP
           OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSFIP

       OWNER IS PERSONNEL.LIST.P
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

       MEMBER IS FAMILY.INFO.P
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU PERSFIP
           OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSEXP

       OWNER IS PERSONNEL.LIST.P
           ORDER IS PERMANENT SORTED BY DATA BASE KEY

       MEMBER IS EXPERIENCE.P
           MANDATORY AUTOMATIC
           LINKED TO OWNER
           SET SELECTION THRU PERSEXP
           OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS PERSAWP

     OWNER IS PERSONNEL.LIST.P
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS ACTUAL.WORK.P
         MANDATORY AUTOMATIC
         LINKED TO OWNER
         SET SELECTION THRU PERSAWP
         OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DEPTAWP

     OWNER IS DEPT.STATISTICS.P
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS ACTUAL.WORK.P
         MANDATORY AUTOMATIC
         LINKED TO OWNER
         SET SELECTION THRU DEPTAWP
         OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PERSPRP

     OWNER IS PERSONNEL.LIST.P
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS PAY.ROLL.P
         MANDATORY AUTOMATIC
         LINKED TO OWNER
         SET SELECTION THRU PERSPRP
         OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DEPTMFP

     OWNER IS DEPT.STATISTICS.P
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS MONTH.F.P
         MANDATORY AUTOMATIC
         LINKED TO OWNER
         SET SELECTION THRU DEPTMFP
         OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MFPRP
      OWNER IS MONTH.F.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS PLAN.REAL.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MFPRP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MPUSEP
      OWNER IS MACHINE.LIST.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS PREVIOUS.USE.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING REGION.CODE
          SET SELECTION THRU MPUSEP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MMONGP
      OWNER IS MACHINE.LIST.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS MONTH.G.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING YEAR
          SEARCH KEY IS MONTH
          SET SELECTION THRU MMONGP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MGPUSP
      OWNER IS MONTH.G.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS
      MEMBER IS PRESENT.USE.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING WORKSITE.CODE
          SET SELECTION THRU MGPUSP
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MGPLANP
      OWNER IS MONTH.G.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS
      MEMBER IS PLAN.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING WORKSITE.CODE
          SET SELECTION THRU MGPLANP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MMPRLP
      OWNER IS MONTH.G.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS
      MEMBER IS MACH.PLAN.REAL.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING PLAN.BEGIN.DATE
          SET SELECTION THRU MMPRLP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MLFAILP
      OWNER IS MACHINE.LIST.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS FAILURE.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MLFAILP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MLMDTLP
      OWNER IS MACHINE.LIST.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS MAINT.DETAIL.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MLMDTLP
          OWNER IDENTIFIED BY DATA BASE KEY
```

SET NAME IS MLMPLANP
        OWNER IS MACHINE.LIST.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS MAINT.PLAN.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MLMPLANP
            OWNER IDENTIFIED BY DATA BASE KEY

SET NAME IS SPDSPLP
        OWNER IS SPARE.PARTS.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS DEMAND.SUPPLY.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU SPDSPLP
            OWNER IDENTIFIED BY DATA BASE KEY

SET NAME IS SPRNP
        OWNER IS SPARE.PARTS.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS R.N.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU SPRNP
            OWNER IDENTIFIED BY DATA BASE KEY

SET NAME IS SUPLRNP
        OWNER IS SUPPLIER.MACH.P
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
        MEMBER IS R.N.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU SUPLRNP
            OWNER IDENTIFIED BY DATA BASE KEY

```
SET NAME IS SPOSP

      OWNER IS SPARE.PARTS.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS ORDER.SHIP.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ORDER.DATE
          SEARCH KEY IS SUPPLIER.CODE
          SET SELECTION THRU SPOSP
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SPLOSP

      OWNER IS SUPPLIER.MACH.P
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS ORDER.SHIP.P
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ORDER.DATE
          SEARCH KEY IS SUPPLIER.CODE
          SET SELECTION THRU SPLOSP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MPLSPP

      OWNER IS MAINT.PLAN.P
          ORDER IS PERMANENT IMMATERIAL

      MEMBER IS SPARE.PARTS.P
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU MPLSPP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JOURFAP

      OWNER IS JOURNAL.ACCOUNT.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS FIXED.ASSETS.P
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JOURFAP
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS JOURPRP
      OWNER IS JOURNAL.ACCOUNT.P
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PAY.ROLL.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JOURPRP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS DDPRRLP
      OWNER IS DEPT.DATA.P
            ORDER IS PERMANENT IMMATERIAL

      MEMBER IS PRODUCTION.REAL.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU DDPRLP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS DCFXASP
      OWNER IS DEPT.COST.P
            ORDER IS PERMANENT IMMATERIAL

      MEMBER IS FIXED.ASSETS.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU DCFXASP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRMPRLP
      OWNER IS PRODUCTION.REAL.P
            ORDER IS PERMANENT IMMATERIAL

      MEMBER IS MACH.PLAN,REAL.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU PRMPRLP
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MUMLP

        OWNER IS MACHINE.USAGE.P
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS MACHINE.LIST.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU MUMLP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MPWUDSP

        OWNER IS MANPOWER.USAGE.P
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS DEPT.STATISTICS.P
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MPWUDSP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MCPRRLP

        OWNER IS MODEL.COST.P
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS PRODUCTION.REAL.P
            MANDATORY MANUAL
            LINKED TO ONWER
            SET SELECTION THRU MCPRRLP
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PRPLRPP

        OWNER IS PRODUCTION.REAL.P
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS PLAN.REAL.P
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU PRPLRPP
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BLDCP

      OWNER IS BUDGET.LEVEL.P
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS DEPT.COST.P
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU BLDCP
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS WHRM

      OWNER IS WAREHOUSE.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS REMAINDER.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU WHRM
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PIRM

      OWNER IS PART.ID.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS REMAINDER.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PIRM
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PLMAM

      OWNER IS PART.ID.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS MONTH.A.M
          MANDATORY AUTOMATIC
          KEY IS ASCENDING YEAR
          SEARCH KEY IS MONTH
          SET SELECTION THRU PLMAM
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS PRLM

        OWNER IS PART.ID.M
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS R.L.M
             MANDATORY AUTOMATIC
             LINKED TO OWNER
             SET SELECTION THRU PRLM
             OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SRLM

        OWNER IS SUPPLIER.M
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS R.L.M
             MANDATORY AUTOMATIC
             LINKED TO OWNER
             SET SELECTION THRU SRLM
             OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS POPM

        OWNER IS PART.ID.M
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS OUT.PACK.M
             MANDATORY AUTOMATIC
             LINKED TO OWNER
             SET SELECTION THRU POPM
             OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PIPM

        OWNER IS PART.ID.M
             ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS IN.PACK.M
             MANDATORY AUTOMATIC
             LINKED TO OWNER
             SET SELECTION THRU PIPM
             OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS MADEMM

      OWNER IS MONTH.A.M
            ORDER IS PERMANENT IMMATERIAL

      MEMBER IS DEMAND.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING SUPPLIER.CODE
            SEARCH KEY IS DATE, INVOICE.NO
            SET SELECTION THRU MADEMM
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS CUSDMC

      OWNER IS CUSTMR.DOMESTIC
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS MONTH.C.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU CUSDMC
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MADEL

      OWNER IS MONTH.A
            ORDER IS PERMANENT IMMATERIAL

      MEMBER IS DELIVERY
            MANDATORY AUTOMATIC
            KEY IS ASCENDING CONTRACT.NO
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU MADEL
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MCOCUS

      OWNER IS MONTH.C.M
            ORDER IS PERMANENT IMMATERIAL

      MEMBER IS ORDER.CUSTOMER
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ORDER.NO
            SEARCH KEY IS PART.CODE
            SET SELECTION THRU MCOCUSM
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MCDS

        OWNER IS MONTH.C.M
            ORDER IS PE⌐MANENT IMMATERIAL

        MEMBER IS DOMESTIC.SELLS.M
            MANDATORY MANUAL
            KEY IS ASCENDING DELIVERY.DATE
            SEARCH KEY IS PART.CODE, INVOICE.NO
            SET SELECTION THRU MCDS
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS REPME

        OWNER IS REPRESENTATIVE
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MONTH.E.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU REPME
            OWNER I⌐ENTIFIED BY DATA BASE KEY


SET NAME IS MERR

        OWNER IS MONTH.E.M
            ORDER IS PE⌐MANENT IMMATERIAL

        MEMBER IS REPR.REAL
            MANDATORY AUTOMATIC
            KEY IS ASCENDING PART.CODE
            SET SELECTION THRU MERR
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MEOCUS

        OWNER IS MONTH.E.M
            ORDER IS PERMANENT IMMATERIAL

        MEMBER IS ORDER.CUSTOMER
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ORDER.NO
            SEARCH KEY IS PART.CODE
            SET SELECTION THRU MEOCUS
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MEDS

      OWNER IS MONTH.E.M
          ORDER IS PERMANENT IMMATERIAL

      MEMBER IS DOMESTIC.SELLS
          MANDATORY MANUAL
          KEY IS ASCENDING DELIVERY.DATE
          SEARCH KEY IS PART.CODE, INVOICE.NO
          SET SELECTION THRU MEDS
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PPRQT

      OWNER IS PART.ID.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PRICE.QUOT
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PPRQT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS COMQT

      OWNER IS COMPETITORS
          ORDER IS PERMANENT.SORTED BY DATA BASE KEY

      MEMBER IS PRICE.QUOT
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU COMQT
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS CUSEMD

      OWNER IS CUSTMR.EXPORT
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS MONTH.D.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU CUSEMD
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS MDOEX
      OWNER IS MONTH.D.M
          ORDER IS PERMANENT IMMATERIAL
      MEMBER IS ORDER.EXPORT
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SEARCH KEY IS PART.CODE, ORDER.NO
          SET SELECTION THRU MDOEX
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MDEXR
      OWNER IS MONTH.D.M
          ORDER IS PERMANENT IMMATERIAL
      MEMBER IS EXPORT.REAL
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SEARCH KEY IS INVOICE.DATE, INVOICE.NO, PART.CODE
          SET SELECTION THRY MDEXR
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PIRR
      OWNER IS PART.ID.M
          ORDER IS PERMANENT BY DATA BASE KEY
      MEMBER IS REPR.REAL
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PIRR
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PIOC
      OWNER IS PART.ID.M
          ORDER IS PERMANENT BY DATA BASE KEY
      MEMBER IS ORDER.CUSTOMER
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SEARCH KEY IS ORDER.NO, PART.CODE
          SET SELECTION THRU PIOC
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PIDS

        OWNER IS PART.ID.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS DOMESTIC.SELLS
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SEARCH KEY IS DELIVERY.DATE.INVOICE.NO
            SET SELECTION THRU PIDS
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PIOEX

        OWNER IS PART.ID.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ORDER.EXPORT
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SEARCH KEY IS ORDER.NO
            SET SELECTION THRU PIOEX
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PIER

        OWNER IS PART.ID.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EXPORT.REAL
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SEARCH KEY IS INVOICE.NO
            SET SELECTION THRU PIER
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS DEDEL

        OWNER IS DEMAND.M
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS DELIVERY.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SEARCH KEY IS INVOICE.NO
            SET SELECTION THRY DEDEL
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS SUPDEM

      OWNER IS SUPPLIER.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS DEMAND.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU SUPDEM
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS SUPDEL

      OWNER IS SUPPLIER.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS DEMAND.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU SUPDEL
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS ILLDM

      OWNER IS IMPORT.LICENSE.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS LICENSE.DETAIL.M
          MANDATORY AUTOMATIC
          KEY IS ASCENDING MATL.CODE
          SET SELECTION THRU ILLDM
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS LDIPM

      OWNER IS LICENSE.DETAIL.M
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS IMPORT.PREP.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU LDIPM
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS LDIRM

     OWNER IS LICENSE.DETAIL.M
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS IMPORT.REAL.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU LDIRM
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS IPIRM

     OWNER IS IMPORT.PREP.M
          ORDER IS PERMANENT IMMATERIAL

     MEMBER IS IMPORT.REAL.M
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU IPIRM
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BTBFM

     OWNER IS BS.TOTAL.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS BS.FORMAT.M
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU BTBFM
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BFBAM

     OWNER IS BS.FORMAT.M
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS BS.ACCOUNT.M
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LINE.NO
          SET SELECTION THRU BFBAM
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PRPFM
      OWNER IS PL.RESULT.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS PL.FORMAT.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU PRPFM
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PFPAM
      OWNER IS PL.FORMAT.M
            ORDER IS PERMANENT BY DEFINED KEYS
      MEMBER IS PL.ACCOUNT.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING LINE.NO
            SET SELECTION THRU PFPAM
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS LASAM
      OWNER IS LEDGER.ACCNT.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY
      MEMBER IS SUBSDR.ACCNT.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ACCOUNT.NO
            SET SELECTION THRU LASAM
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SAJAM
      OWNER IS SUBSDR.ACCNT.M
            ORDER IS PERMANENT SORTED BY DEFINED KEYS
      MEMBER IS JOURNAL.ACCNT.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ACCOUNT.NO
            SET SELECTION THRU SAJAM
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS JAMHM

     OWNER IS JOURNAL.ACCNT.M
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS MONTH.H.M
          MANDATORY AUTOMATIC
          KEY IS ASCENDING YEAR
          SEARCH KEY IS MONTH
          SET SELECTION THRU JAMHM
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHJM

     OWNER IS MONTH.H.M
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS JOURNAL.M
          MANDATORY AUTOMATIC
          KEY IS ASCENDING DATE
          SEARCH KEY IS TRANSACT.NO
          SET SELECTION THRU MHJM
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS CRGETM

     OWNER IS CREDIT.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS CREDIT.GET.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          KEY IS ASCENDING DATE
          SET SELECTION THRU CRGETM
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS CRPAYM

     OWNER IS CREDIT.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS CREDIT.PAY.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          KEY IS ASCENDING DATE
          SET SELECTION THRU CRPAYM
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS BDBTM

      OWNER IS BUDGET.DATE.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BUDGET.TOTAL.M
          MANDATORY AUTOMATIC
          KEY IS ASCENDING ACCOUNT.NO
          SET SELECTION THRU BDBTM
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS BTBLM

      OWNER IS BUDGET.TOTAL.M
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.I.M
          MANDATORY AUTOMATIC
          KEY IS ASCENDING LEVEL.NO
          SET SELECTION THRU BTBLM


SET NAME IS BLABLBM

      OWNER IS BUDGET.LEVEL.I.M
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BUDGET.LEVEL.Z.M
          MANDATORY MANUAL
          KEY IS ASCENDING LEVEL.NO
          SET SELECTION THRU BLABLBM
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PBONDM

      OWNER IS PAYABLES.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BOND.DETAIL.M
          MANDATORY MANUAL
          KEY IS ASCENDING ENDORSE.DATE
          SEARCH KEY IS RECEIV.DATE
          SET SELECTION THRU PBONDM
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS RBONDM

      OWNER IS RECEIVABLES.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS BOND.DETAIL.M
          MANDATORY MANUAL
          KEY IS ASCENDING ENDORSE.DATE
          SEARCH KEY IS RECEIV.DATE
          SET SELECTION THRU RBONDM
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLBSM

      OWNER IS JOURNAL.ACCNT.M
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS BANKS.M
          MANDATORY MANUAL
          KEY IS ASCENDING BANK.CODE
          SET SELECTION THRU JLBSM
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLCTM

      OWNER IS JOURNAL.ACCNT.M
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS CREDIT.M
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JLBSM
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JLPSM

      OWNER IS JOURNAL.ACCNT.M
          ORDER IS PERMANENT SORTED BY DEFINED KEYS

      MEMBER IS PAYABLES.M
          MANDATORY MANUAL
          LINKED TO OWNER
          SET SELECTION THRU JLPSM
          OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS JLRSM
        OWNER IS JOURNAL.ACCNT.M
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS RECEIVABLES.M
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JLRSM
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MHBLLM
        OWNER IS MONTH.H.M
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS BUDGET.LEVEL.Z.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU MHBLLM
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JAPLAM
        OWNER IS JOURNAL.ACCNT.M
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PL.ACCOUNT.M
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU JAPLAM
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS LABSAM
        OWNER IS LEDGER.ACCNT.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS BS.ACCNT.M
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU LABSAM
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS BNCRTM

        OWNER IS BANKS.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CREDIT.M
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNCRTM
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNILCM

        OWNER IS BANKS.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS IMPORT.LICENSE.M
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNILCM
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNIPRM

        OWNER IS BANKS.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS IMPORT.PREP.M
            MANDATORY MANUAL
            LINKED TO OWNER
            SET SELECTION THRU BNIPRM
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS BNCDPM

        OWNER IS BANKS.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS CERTF.DEPOSIT.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU BNCDPM
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS SDPPE

     OWNER IS SHIPMT.DETAIL
         ORDER IS PERMANENT SORTED BY DEFINED KEYS

     MEMBER IS PAYM.PLAN.EXP
         MANDATORY AUTOMATIC
         LINKED TO OWNER
         SET SELECTION THRU SDPPE
         OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS PERSEDM

     OWNER IS PERSONNEL.LIST.M
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS EDUCATION.M
         MANDATORY AUTOMATIC
         LINKED TO OWNER
         SET SELECTION THRU PERSEDM
         OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSREFM

     OWNER IS PERSONNEL.LIST.M
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS REFERENCES.M
         MANDATORY AUTOMATIC
         LINKED TO OWNER
         SET SELECTION THRU PERSREFM
         OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSPWM

     OWNER IS PERSONNEL.LIST.M
         ORDER IS PERMANENT SORTED BY DATA BASE KEY

     MEMBER IS PREVIOUS.WORK.M
         MANDATORY AUTOMATIC
         LINKED TO OWNER
         SET SELECTION THRU PERSPWM
         OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS PERSFIM
        OWNER IS PERSONNEL.LIST.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS FAMILY.INFO.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSFIM
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSEXM
        OWNER IS PERSONNEL.LIST.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS EXPERIENCE.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSEXM
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS PERSAWM
        OWNER IS PERSONNEL.LIST.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ACTUAL.WORK.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU PERSAWM
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DEPTAWM
        OWNER IS DEPT.STATISTICS.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ACTUAL.WORK.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU DEPTAWM
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS PERSPRM

      OWNER IS PERSONNEL.LIST.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PAY.ROLL.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU PERSPRM
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS DEPTMFM

      OWNER IS DEPT.STATISTICS.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS MONTH.F.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU DEPTMFM
          OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MFPRM

      OWNER IS MONTH.F.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PLAN.REAL.M
          MANDATORY AUTOMATIC
          LINKED TO OWNER
          SET SELECTION THRU MFPRM
          OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MPUSEM

      OWNER IS MACHINE.LIST.M
          ORDER IS PERMANENT SORTED BY DATA BASE KEY

      MEMBER IS PREVIOUS.USE.M
          MANDATORY AUTOMATIC
          KEY IS ASCENDING REGION.CODE
          SET SELECTION THRU MPUSEM
          OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS MMONGM
        OWNER IS MACHINE.LIST.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS MONTH.G.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING YEAR
            SEARCH KEY IS MONTH
            SET SELECTION THRU MMONGM
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MGPUSM
        OWNER IS MONTH.G.M
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PRESENT.USE.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING WORKSITE.CODE
            SET SELECTION THRU MGPUSM
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MGPLANM
        OWNER IS MONTH.G.M
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PLAN.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING WORKSITE.CODE
            SET SELECTION THRU MGPLANM
            OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS MMPRLM
        OWNER IS MONTH.G.M
            ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS MACH.PLAN.REAL.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING PLAN.BEGIN.DATE
            SET SELECTION THRU MMPRLM
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MLFAILM

    OWNER IS MACHINE.LIST.M
        ORDER IS PERMANENT SORTED BY DATA BASE KEY

    MEMBER IS FAILURE.M
        MANDATORY AUTOMATIC
        LINKED TO OWNER
        SET SELECTION THRU MLFAILM
        OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MLMDTLM

    OWNER IS MACHINE.LIST.M
        ORDER IS PERMANENT SORTED BY DATA BASE KEY

    MEMBER IS MAINT.DETAIL.M
        MANDATORY AUTOMATIC
        LINKED TO OWNER
        SET SELECTION THRU MLMDTLM
        OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS MLMPLANM

    OWNER IS MACHINE.LIST.M
        ORDER IS PERMANENT SORTED BY DATA BASE KEY

    MEMBER IS MAINT.PLAN.M
        MANDATORY AUTOMATIC
        LINKED TO OWNER
        SET SELECTION THRU MLMPLANM
        OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SPDSPLM

    OWNER IS SPARE.PARTS.M
        ORDER IS PERMANENT SORTED BY DATA BASE KEY

    MEMBER IS DEMAND.SUPPLY.M
        MANDATORY AUTOMATIC
        LINKED TO OWNER
        SET SELECTION THRU SPDSPLM
        OWNER IDENTIFIED BY DATA BASE KEY
```

```
SET NAME IS SPRNM

        OWNER IS SPARE.PARTS.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS R.N.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU SPRNM
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SUPLRNM

        OWNER IS SUPPLIER.MACH.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS R.N.M
            MANDATORY AUTOMATIC
            LINKED TO OWNER
            SET SELECTION THRU SUPLRNM
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SPOSM

        OWNER IS SPARE.PARTS.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ORDER.SHIP.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ORDER.DATE
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU SPOSM
            OWNER IDENTIFIED BY DATA BASE KEY


SET NAME IS SPLOSM

        OWNER IS SUPPLIER.MACH.M
            ORDER IS PERMANENT SORTED BY DATA BASE KEY

        MEMBER IS ORDER.SHIP.M
            MANDATORY AUTOMATIC
            KEY IS ASCENDING ORDER.DATE
            SEARCH KEY IS SUPPLIER.CODE
            SET SELECTION THRU SPLOSM
            OWNER IDENTIFIED BY CURRENT OF SET
```

```
SET NAME IS MPLSPM

        OWNER IS MAINT.PLAN.M
              ORDER IS PERMANENT IMMATERIAL

        MEMBER IS SPARE.PARTS.M
              MANDATORY MANUAL
              LINKED TO OWNER
              SET SELECTION THRU MPLSPM
              OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JOURFAM

        OWNER IS JOURNAL.ACCNT.M
              ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS FIXED.ASSETS.M
              MANDATORY MANUAL
              LINKED TO OWNER
              SET SELECTION THRU JOURFAM
              OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS JOURPRM

        OWNER IS JOURNAL.ACCNT.M
              ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PAY.ROLL.M
              MANDATORY MANUAL
              LINKED TO OWNER
              SET SELECTION THRU JOURPRM
              OWNER IDENTIFIED BY CURRENT OF SET


SET NAME IS DSPPD

        OWNER IS DOMESTIC.SELLS
              ORDER IS PERMANENT SORTED BY DEFINED KEYS

        MEMBER IS PAYM.PLAN.DOMST
              MANDATORY AUTOMATIC
              LINKED TO OWNER
              SET SELECTION THRU DSPPD
              OWNER IDENTIFIED BY CURRENT OF SET
```

APPENDIX C

THE SCHEMA REPRESENTATION
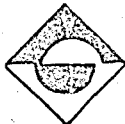
PORTION OF SCHEMA FOR
MATERIAL
OF CONSTRUCTION

WAREHOUSE.CR

WAREHOUSE NO	WAREHOUSE NAME
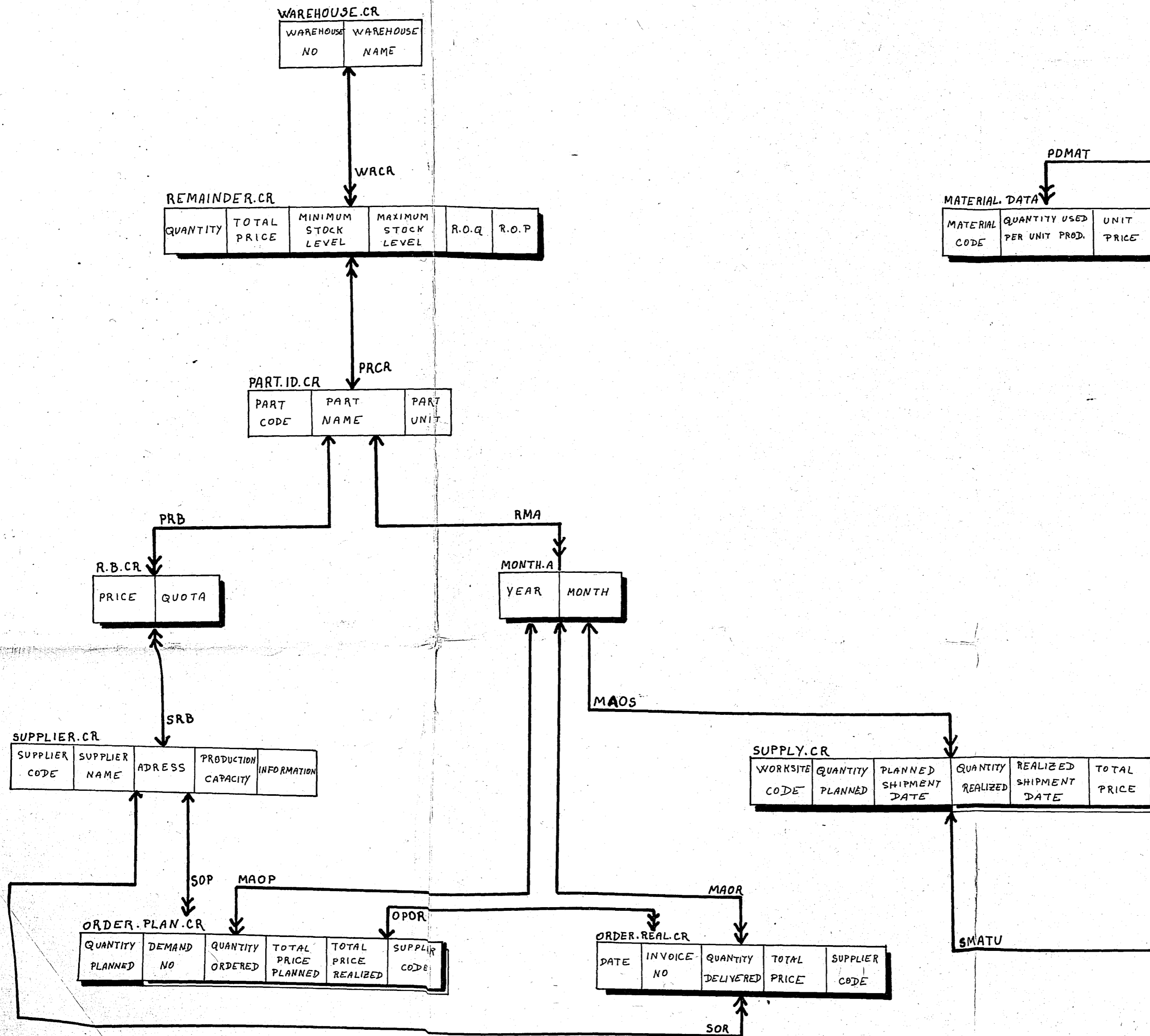
PRODUCTION. DATA

PROCESS CODE	PROCESS NAME	UNIT

WRCR

PDMAT

PDMAN

REMAINDER.CR

QUANTITY	TOTAL PRICE	MINIMUM STOCK LEVEL	MAXIMUM STOCK LEVEL	R.O.Q	R.O.P

MATERIAL. DATA

MATERIAL CODE	QUANTITY USED PER UNIT PROD.	UNIT PRICE

MANPOWER.DATA

MANPOWER TYPE	MAN. TIME USED PER UNIT PROD.	UNIT PRICE

PRCR

PART. ID. CR

PART CODE	PART NAME	PART UNIT

PRB

RMA

R.B.CR

PRICE	QUOTA

MONTH.A

YEAR	MONTH

MAOS

SRB

SUPPLIER.CR

SUPPLIER CODE	SUPPLIER NAME	ADRESS	PRODUCTION CAPACITY	INFORMATION

SUPPLY.CR

WORKSITE CODE	QUANTITY PLANNED	PLANNED SHIPMENT DATE	QUANTITY REALIZED	REALIZED SHIPMENT DATE	TOTAL PRICE

SOP MAOP MAOR SMATU

OPOR

ORDER.PLAN.CR

QUANTITY PLANNED	DEMAND NO	QUANTITY ORDERED	TOTAL PRICE PLANNED	TOTAL PRICE REALIZED	SUPPLIER CODE

ORDER.REAL.CR

DATE	INVOICE NO	QUANTITY DELIVERED	TOTAL PRICE	SUPPLIER CODE

SOR

REGION

REGION CODE	REGION NAME

RP

PROJECT

PROJECT CODE	PROJECT NAME

WPROD

PDMACH

MACHINE.DATA

MACHINE CODE	TIME USED PER UNIT PROD.	UNIT PRICE

WMB

PW

WORKSITE

WORKSITE CODE	WORKSITE NAME

WU

UNIT

UNIT CODE	UNIT NAME

UD

DETAIL

DETAIL CODE	DETAIL DESCRIPTION

WORK   DW

WORK CODE	WORK NAME	UNIT	TOTAL QUANTITY	MONEY RETURN	PLANNED BEGINNING DATE	PLANNED ENDING DATE	REALIZED BEGINNING DATE	REALIZED ENDING DATE	QUANTITY REALIZED	MONEY GAINED

MONTH.B

YEAR	MONTH

WMAT.U

MATERIAL.USAGE.CR

MATERIAL CODE	QUANTITY PLANNED	QUANTITY USED

WMANU

MANPOWER.USAGE.CR

MANPOWER TYPE	MAN.TIME PLANNED	MANTIME USED	PLANNED DATE	REALIZED DATE	NUMBER OF WORKERS

WMACH

MACHINE.USAGE.CR

MACHINE CODE	TOTAL TIME PLANNED	TOTAL TIME USED	PLANNED DATE	RELIZED DATE

PART.LIST.P

PART CODE	PART NAME	UNIT	QUANTITY REMAINING	TOTAL COST	MINIMUM STOCK LEVEL	MAXIMUM STOCK LEVEL	R.O.Q	R.O.P	LAST ENTER DATE	MONTHLY TOTAL QUANTITY	MONTHLY TOTAL COST

PLRH

PLMX

R.H.P

MONTH

MONTH.X

YEAR	MONTH

RHD

RHS

MXSUP

MXPP

DEMAND.P

DEMAND (contract) NO	DEMAND DATE	QUANTITY ORDERED	CUSTOMER CODE	TOTAL PRICE	PRIORITY	SHIPMENT PLAN	
						DATE	QUANTITY

SUPPLY.PLAN.P

DEPT. CODE	QUANTITY PLANNED	QUANTITY DEMANDED	DEMAND DATE

PRODUCTION.PLAN.P

QUANTITY PLANNED	DEPT. CODE	TOTAL COST

DEMSEL

SUPSUR

PRODPR

SELL.P

DELIVERY DATE	DELIVERED QUANTITY	TOTAL PRICE	TOTAL COST	CUSTOMER CODE

SUPPLY.REAL.P

DATE	DEPT. CODE	ROLL NO	QUANTITY GIVEN	TOTAL COST

PRODUCTION.REAL.P

DATE	ROLL NO	DEPT. CODE	QUANTITY IN	TOTAL COST

TOTAL QUANTITY TIME | **TOTAL COST TIME**

QCIPL

MATUPL

PLRF

PASM

AVG. STOCK. MONTH. P

MONTH	AVERAGE QUANTITY	AVERAGE COST

R.F.P

PRICE	QUOTA

PPMAT

ASMOP

SRF

ORDER. PLAN.P

DEMAND (Contract) No	QUANTITY PLANNED	QUANTITY ORDERED	TOTAL COST	SUPPLIER CODE

SUPPLIER.P

SUPPLIER CODE	NAME	ADRESS	PRODUCTION CAPACITY	INFORMATION

MATERIAL.USAGE

MATERIAL CODE	QUANTITY PER UNIT PRODUCTION

ASMOR

SPPOR

QCPROD

ORDER. REAL.P

DATE	INVOICE NO	QUANTITY DELIVERED	TOTAL PRICE	SUPPLIER CODE

Q. CONTROL

TEST CODE	TEST NAME	NORMAL LOWER

QCQCI

ORDRQC

QC. TEST.P

TEST CODE	TESTED AMOUNT	RESULT

QC. INFO

LIMITS		CODE OF PROCESS TO BE INFORMED	INFORMATION GIVEN	MATERIAL TO BE ADDED	
LOWER	UPPER			CODE	QUANTITY

QCD

WIPPL

TEST. DATA.P

TEST CODE	TEST NAME	NORMAL LIMITS	
		LOWER	UPPER

W. I. P

JOB NO	PRODUCT CODE	QUANTITY	CUSTOMER CODE	ACTUAL COST OF			
				MATERIAL	MANPOWER	ENERGY	MACHINE

RECPL

RECIPE

RECIPE NO	RECIPE NAME	CODE OF PRODUCT RESULTING	PRODUCT NAME	UNIT	UNIT COST

RECPP

PRODUCTION. PHASE

DEPT CODE	PROCESS CODE	PROCESS NAME	PART CODE RESULTING	UNIT COST	DURATION OF PROCESS	TEST INDEX	INFORM. INDEX	LOSS %

PPQC   **PPMAN**   **PPMAC**

MANPOWER. USAGE

MANPOWER TYPE	TIME PER UNIT PROD.	NUMBER OF WORKERS	COST OF UNIT TIME

MACHINE. USAGE

MACHINE CODE	TIME USED PER UNIT PRODUCTION	COST OF UNIT TIME	ENERGY TYPE	ENERGY USED PER UNIT PRODUCTION	UNIT COST OF ENERGY

NORMAL LIMITS

LOWER	UPPER

QCQCR

QC. RESULTS

JOB NO	AMOUNT OF SAMPLE	ACTUAL RESULT	DATE	HOUR

PPWIP   **QCRS**

QC. STATISTICS

TEST CODE	MONTH	TOTAL QUANTITY TESTED	ACTUAL RESULTS		
			UPPER	AVERAGE	LOWER
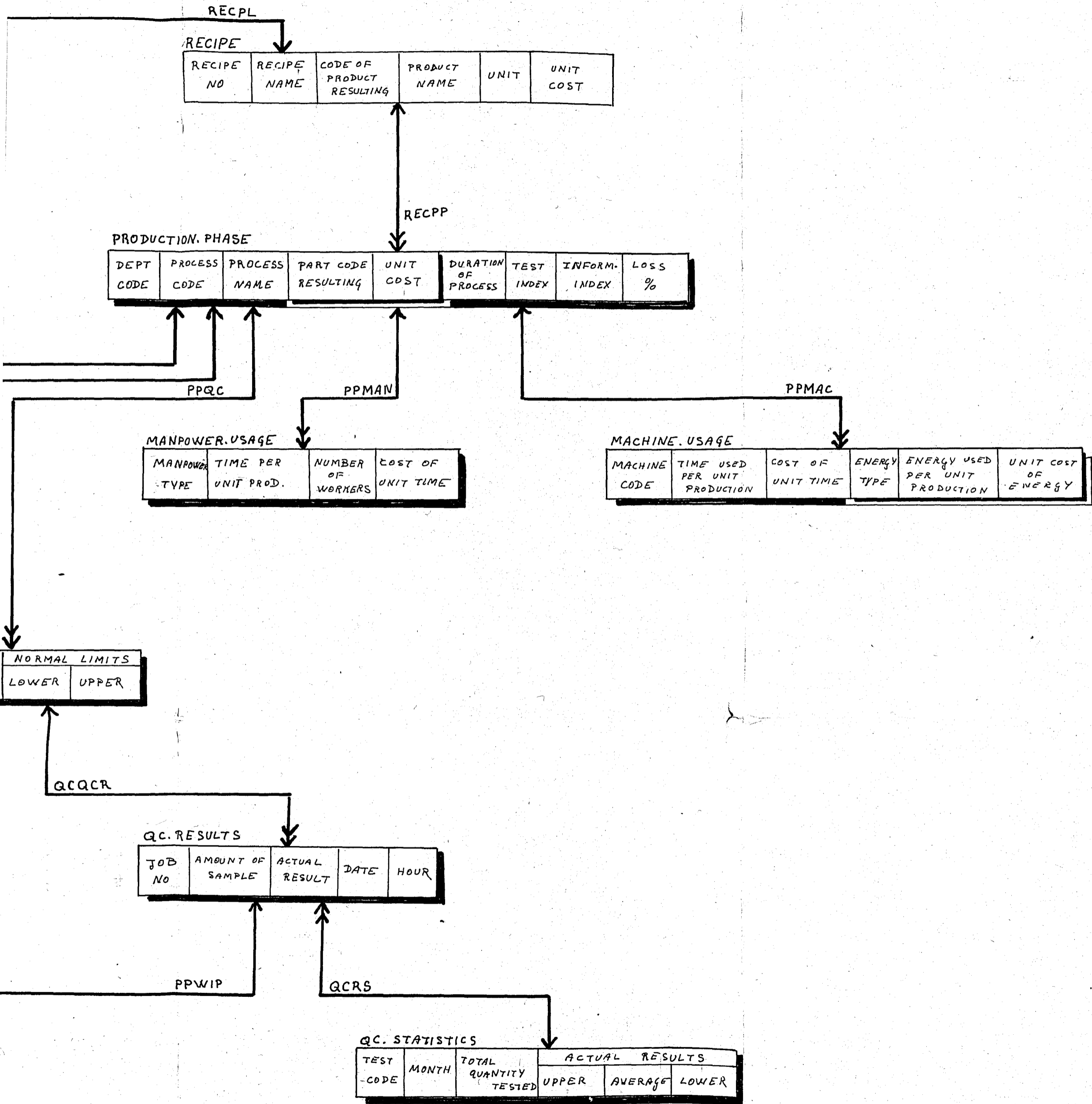
PART.LIST.T

WAREHOUSE No	PART CODE	PART NAME	UNIT	QUANTITY REMAINING	TOTAL COST	MINIMUM STOCK LEVEL	MAXIMUM STOCK LEVEL	R.O.Q	R.O.P	LAST ENTER DATE	TOTAL MONTHLY ENTREN.	TOTAL MONTHLY COST	TOTAL QUANTITY TIME

PLRET

PLQCT

PLMZT

PLASMT

R.E.T.

MONTH

MONTH.Z

YEAR	MONTH

REDT

REST

MZSPT

MZPPT

DEMAND.T

DEMAND (contract) No	DEMAND DATE	DEMANDED QUANTITY	CUSTOMER CODE	TOTAL PRICE	PRIORITY	SHIPMENTS	
						DATE	QUANTITY

SUPPLY.PLAN.T

DEPT. CODE	QUANTITY PLANNED	QUANTITY DEMANDED	DEMAND DATE

PRODUCTION.PLAN.T

QUANTITY PLANNED	DEPT. CODE	TOTAL COST

DST

SPSRT

PPPRT

SELL.T

DELIVERY DATE	DELIVERED QUANTITY	TOTAL PRICE	TOTAL COST	CUSTOMER CODE

SUPPLY.REAL.T

DATE	DEPT. CODE	ROLL. NO	QUANTITY GIVEN	TOTAL COST

PRODUCTION.REAL.T

DATE	ROLL NO	DEPT. CODE	QUANTITY IN	TOTAL COST

QC.STATISTICS.T

TEST CODE	NORMAL LIMITS		CUMULATIVE TESTED QUANTITY	CUMULATIVE DEFECTIVE QUANTITY	CUMULATIVE REPAIRABLE QUANTITY
	LOWER	UPPER			

MODEL

MODEL CODE	MODEL NAME

MP

PROCESS

PROCESS CODE	PROCESS NAME	CODE OF PART RESULTING	UNIT COST	TIME SCALE	DEPT. CODE

MUPL

PMATU

PMANU

PMACHU

MATERIAL.USAGE

PART CODE	QUANTITY USED PER UNIT PRODUCTION

MANPOWER.USAGE

MANPOWER TYPE	TIME FOR UNIT PRODUCTION	NUMBER OF WORKER	COST OF UNIT TIME

MACHINE.USAGE

MACHINE CODE	TIME FOR UNIT PRODUCTION	UNIT TIME COST	ENERGY TYPE	ENERGY USAGE PER UNIT PRODUCTION	COST OF UNIT ENERGY

MUSUB

MUOPP

SUBPARTS

SUBPART CODE	USAGE RATE PER UNIT OF FATHER PART

OPTIONAL.PARTS

PART CODE	SUBSTITUTE INDEX	USAGE RATE

SUPPL

OPPL

PRPRT

WAREHOUSE.M

WAREHOUSE NO	WAREHOUSE NAME

WHR

REMAINDER.M

QUANTITY	TOTAL PRICE	MINIMUM STOCK LEVEL	MAXIMUM STOCK LEVEL	R.O.Q	R.O.P

PIR

PART.ID.M

PART CODE	PART NAME	UNIT

PLMA

PRL

POP

PIP

MONTH.A

YEAR	MONTH

R.L

PRICE	QUOTATION

OUT.PACK

DATE	MATERIAL CODE	QUANTITY	TOTAL COST

MADEL

MADEM

SRL

DEMAND.M

CONTRACT NO	PART CODE	SUPPLIER CODE	QUANTITY ORDERED	TOTAL PRICE	DELIVERY DATE	DELIVERED (PLAN) QUANTITY

SUPPLIER.M

SUPPLIER CODE	SUPPLIER NAME	ADRESS	PRODUCTION CAPACITY	INFORMATION

IN.PACK

DATE	MATERIAL CODE	QUANTITY	TOTAL COST	PACKING CODE	MATERIAL
					QUANTITY	COST

DEDEL

SUPDEM

SUPDEL

DELIVERY.M

SUPPLIER CODE	DATE	QUANTITY	PRICE	INVOICE NO	BACK

CUSTOMER.EXPORT

CUSTOMER CODE	CUSTOMER NAME	ADRESS	QUOTA	INFORMATION

CUSEMD

MONTH.D

YEAR	MONTH

REPRESENTATIVE

REPRESENT. CODE	NAME	ADRESS	QUOTA	INFORMATION

MDOEX MDEXR REPME

ORDER.EXPORT

PART CODE	TOTAL QUANTITY	TOTAL PRICE	ORDER No	PRIORITY	DELIVERED (PLAN) QUANTITY	TOTAL PRICE	CONFIR-MATION	L/C	DELIVERY DATE

EXPORT.REAL

PART CODE	QUANTIZY	ORIGIN OF MATERIAL	PRICE	PAYMENT TYPE	INVOICE NO	INVOICE DATE

MONTH-E

YEAR	MONTH

PIOEX PIER

PPRQT PIOC PIDS PIRR MERR

PRICE.QUOT

PRICE	QUOTATION

CUSTOMER.DOMESTIC

CUSTOMER CODE	CUSTOMER NAME	ADRESS	QUOTA	INFORMATION

REPR.REAL

PART CODE	PLANNED		REALIZED		QUANTITY SOLD	SELLING PRICE	COMISSION	QUANTIT RETURN
	QUANTITY	PRICE	QUANTITY	PRICE				

COMQT CUSDMC

COMPETITORS

NAME	ADRESS	FIELD	CAPACITY	INFORMA-TION

MONTH.C

YEAR	MONTH

MCOCUS MCDS MEDS

ORDER.CUSTOMER

ORDER NO	PART CODE	TOTAL QUANTITY	TOTAL PRICE	DELIVERED (PLAN) QUANTITY	TOTAL PRICE	DELIVERY DATE	PRIORITY

DOMESTIC.SELLS

PART CODE	DELIVERY DATE	QUANTITY	PRICE	ORIGIN OF MATERIAL	DELIVERY PLACE	PAYMENT TYPE	INVOICE NO	INVOICE DATE	BACK	DISCOUNT

MEOCUS

PERSONNEL.LIST

ID. NO	NAME	ADRESS	BIRTH DATE	SEX	ENTRENCE DATE	INSURANCE ID. NO	TAX BOOK NO	NATIONALITY	INFIRMITY CLASS	FOREIGN LANGUAGES	FATHER NAME	MOTHER NAME	BIRTH PLACE	RELIGION	IDENTITY CARD							
															PROVINCE	TOWN	DISTRICT	QUARTER	HOUSE	BIND	PAGE	CARD NO

PERSED

PERSREF

PERSEX

PERSAW

EDUCATION

SCHOOL NAME	GRADUATION DATE	DIPLOMA NO	FIELD

REFERANCES

NAME	ADRESS	POSITION

EXPERIENCE

COMPANY NAME	ADRESS	POSITION	LAST SALARY

ACTUAL.WORK

DEPT CODE	ENTRENCE DATE	POSITION	SALARY	GRADES RECEIVED	PLANNED NEXT LEAVE DATE	PLANNED RETURN DATE	PAST LEAVE	
							LEAVE DATE	BACK DATE

PERSPW

PERSFI

DEPTAW

PREVIOUS.WORK

DATE		DEPT CODE	POSITION	SALARY (WAGE)	GRADES RECEIVED
ENTRENCE	LEAVING				

FAMILY.INFO

MARITAL STATUS	SPOUSE NAME	SPOUSE'S WORK	CHILDREN'S INFORMATION			
			NAME	BIRTH DATE	EDUCATION	MARITAL STATUS

DEPT. STATISTICS

DEPT. CODE	DEPT. NAME	TOTAL OF EMPLO

BOĞAZİÇİ ÜNİVERSİTESİ KÜTÜPHANESİ

PERSPR

PAY.ROLL

YEAR	MONTH	WORK PLACE	WORK DAY	TOTAL NUMBER OF WORK DAYS	LEAVE TIME				OVERTIME			UNDERTIME		PREMIUM	BONUS	EXTRA		PAYMENTS						PREPAYMENT	DISCOU		
					ANNUAL	COMPELLING	HOLLYDAYS	OTHERS	HOLLYDAY	NORMAL	EXTRA PAYMENT	DURATION	MONEY DECREASE			CHILDREN INCREASE	SENIOR INDEMNIFICATION	EDUCATION PAYMENT	CUMBUSTION PAYMENT	MILITARY PAYMENT	TRAVELLING EXPENSES	ENCOURAGE	INCREASE PAYMENT		SPECIAL	GENERAL	EMIGRA

EXEMPTION

EXEMPTION TYPE	AMOUNT	INSURANCE EXEMPTION RATE	TAX EXEMPTION RATE

TAX.RATE

UPPER LIMIT	TAX PERCENTAGE

MONTH.F

MONTH

DEPTMF

0.	TOTAL NO. OF DIRECT WORKERS	TOTAL NO. OF INDIRECT WORKERS	PAYMENTS		
			EMPLOYEE	DIRECT WORKERS	INDIRECT WORKERS
S					

MFPR

PLAN. REAL

WORKER TYPE	PLAN			REAL		
	MAN. HOUR	NO. OF MEN	SALARY	MAN. HOUR	NO. OF MEN	SALARY

S	INFIRMITY	CHILDREN	EDUCATION	NUMBER OF INSURANCE DAYS	TAX CLASS	GROSS INSURANCE AMOUNT	GROSS TAX AMOUNT	INSURANCE PREMIUM	INCOME TAX	SPECIAL	DISCOUNTS							ROUND OFF FACTOR	NET AMOUNT
										TYPE-1	TYPE-2	TYPE-3	TYPE-4	TYPE-5	TYPE-6	TYPE-7	TYPE-8		

PORTION OF SCHEMA FOR
MONEY

IMPORT. LICENCE

FILE NO	CERTIFICATE		IMPORT TYPE	CURRENCY TYPE	VALUE	DEPOSIT				LICENCE		VALIDITY		EXTRA PERIOD	IMPORT BANK REF	IMPORT BANK CODE
	DATE	NO				PERCENT	VALUE	DATE	BANK	DATE	NO	BEGIN. DATE	END. DATE			

LICENCE. DETAIL

MATERIAL CODE	MATERIAL NAME	QUOTATION	
		QUANTITY	VALUE

ILLD

BNILC

LDIP

LDIR

IMPORT. REAL

INVOICE NO	IMPORT DATE	ARRIVAL DATE TO CUSTOM	TRANSPORT TYPE	TRANPORT FIRM	INSURANCE COST	FREIGHT	QUANTITY	TOTAL PRICE	EXCHANGE RATE	MONEY TRANSFER			INSURANCE FIRM	POLICY		REGISTRATION		EXCHANGE RATE	CUSTOM TAX			EXPLANA
										DATE	ROLL NO	EXCHANGE RATE		DATE	NO	DATE	NO		PAYMENT DATE	ROLL. NO	AMOUNT	

IPIR

IMPORT. PREP

PRO FORMA			INVOICE		CORRESPONDANT BANK	INTERMEDIAT BANK	LETTER OF CREDIT					TARIF NO	CUSTOM TAX %
NO	DATE	FIRM	QUANTITY	VALUE			OPEN'G DATE	END'G DATE	AMOUNT	COUNTRY	EXPLANATION		

BNIPR

CERTF.DEPOSIT

BANK CODE	VALUE	CURRENCY TYPE	VALIDITY	BEGIN DATE	CERTIFICATE NO	FIRM GIVEN	GIVE. DATE	BACK DATE	INTEREST RATE

BNCDP
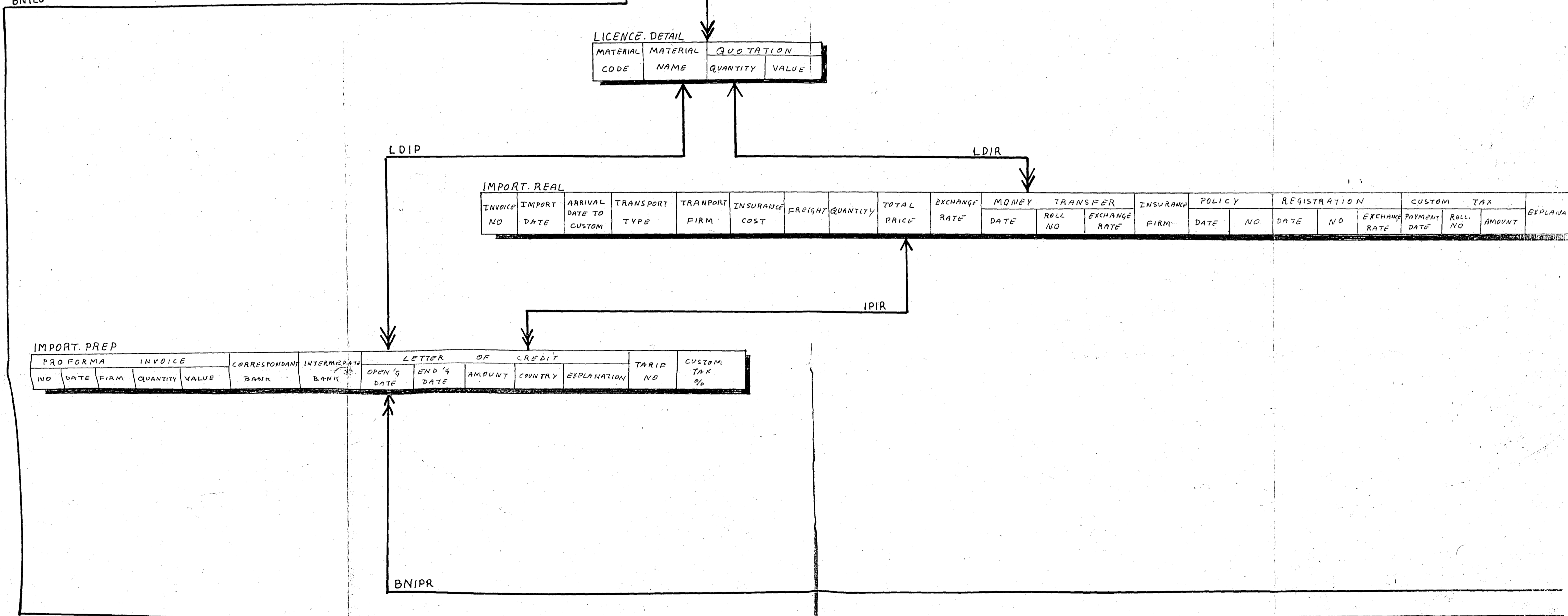
BS.TOTAL

DATE	TOTAL VALUE

LEDGER.ACCNT

ACCOUNT NO	ACCOUNT NAME	DR/CR	REMAINDER

BTBF

LASA

BS.FORMAT

LINE NO	ASSET/LIABILITY	TITLE	UNDERLINE INDEX	COLUMN NO	AMOUNT

SUBSDR. ACCNT

ACCOUNT NO	ACCOUNT NAME	DR/CR	REMAINDER

BFBA · LABSA

SAJA

BS.ACCOUNT

LINE NO	TITLE	COLUMN NO	AMOUNT

JOURNAL. ACCNT

ACCOUNT NO	ACCOUNT NAME	DR/CR	REMAINDER

BSPL

JAMH · JLCT

PL.RESULT

DATE	TOTAL VALUE

MONTH.H

YEAR	MONT

MHBLL

PRPF

MHJ

PL.FORMAT

LINE NO	COST/REVENUE	TITLE	UNDERLINE INDEX	COLUMN NO	AMOUNT

JOURNAL

DATE	TRANSACTION NO	DR/CR	AMOUNT	EXPLANATION

PFPA · JAPLA · JLBS

PL.ACCOUNT

LINE NO	TITLE	COLUMN NO	AMOUNT

CREDIT

CERTIFICATE NO	RECEIVE. DATE	CREDIT TYPE	EXPLANATION	LIMIT VALUE	VALIDITY	CURRENCY TYPE	REFERENCE NO	INTEREST	
								RATE	DATE

BNCRT · CRGET · CRPAY · JLA

BANKS

BANK CODE	BANK NAME	BRANCH NAME	ACCOUNT NO	ACCOUNT TYPE	REMAINDER

CREDIT. GET

DATE	AMOUNT	EXPLANATION

CREDIT.PAY

DATE	AMOUNT	EXPLANATION
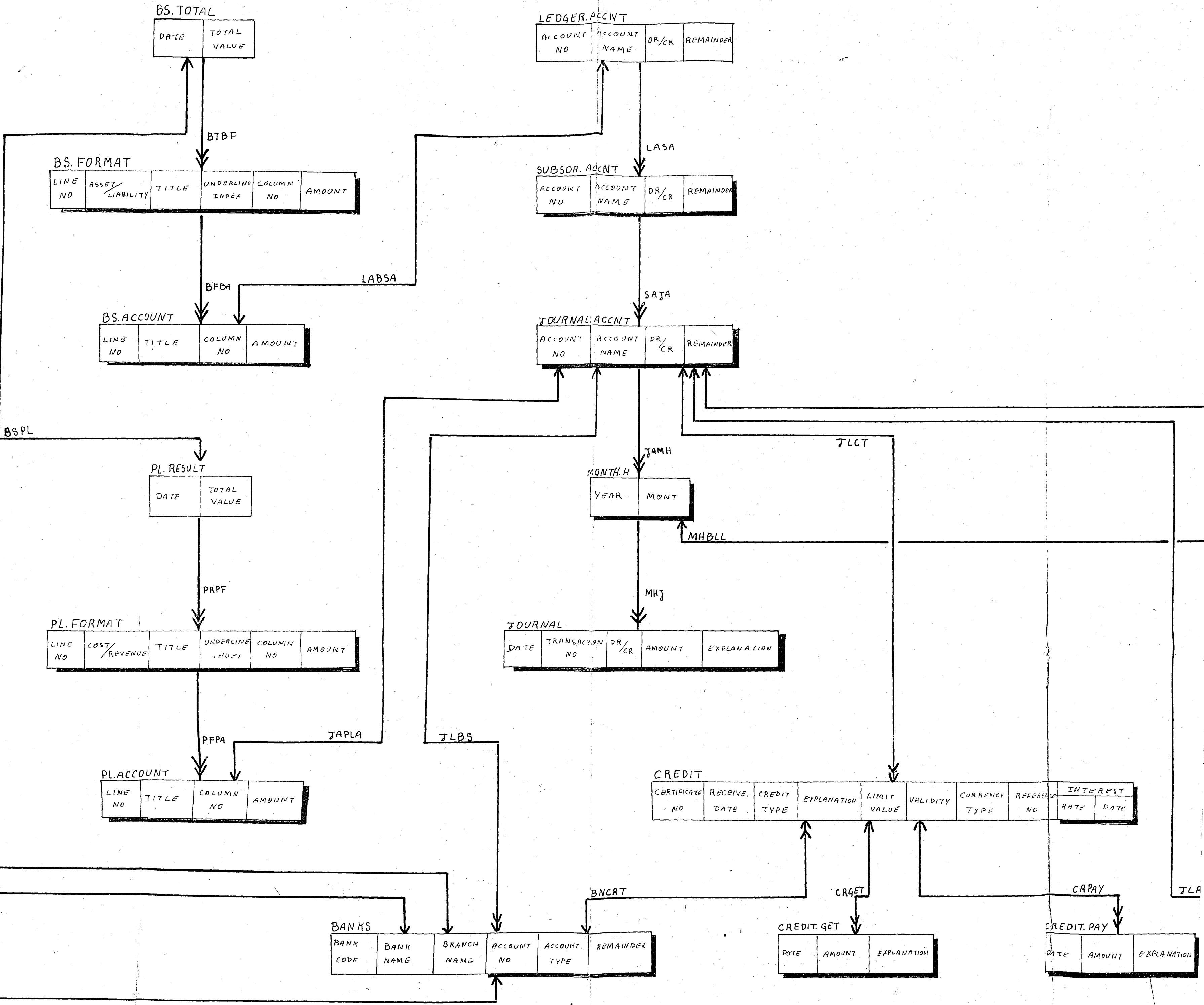
BUDGET. DATE

YEAR	MONTH

↓ BDBT

BUDGET. TOTAL

ACCOUNT NO	ACCOUNT NAME	BUDGETTED AMOUNT	REALIZED AMOUNT

↓ BTBL

BUDGET. LEVEL. A

LEVEL NO	ACCOUNT NO	ACCOUNT NAME	BUDGETTED AMOUNT	REALIZED AMOUNT

↓ BLABLB

BUDGET. LEVEL. Z

LEVEL NO	ACCOUNT NO	ACCOUNT NAME	BUDGETTED AMOUNT	RELIZED AMOUNT

TLPS

PAYABLES

TYPE OF PAYABLE	CREDITOR	AMOUNT	PLANNED DATE	DATE DUE	PAYMENT DATE	REFERENCE

PBOND

BOND. DETAIL

RECEIVING DATE	DEBITOR	ENDORSED FROM	ENDORSED TO	ENDORSE. DATE	ROLL NO	DEBIT PLACE	ENDORSE. REF.	BANK REF. NO	USAGE TYPE

RBOND

RECEIVABLES

TYPE OF RECEIVABLE	DEBITOR	AMOUNT	PLANNED DATE	DATE DUE	PAYMENT DATE	REFERENCE

MACHINE.LIST.CR

MACHINE CODE	MACHINE NAME (+ plate no if any)	MANUFACTURER NAME	MANUFACTURER ADRESS	DELIVERY DATE	PRICE	CODE GIVEN BY MANUFACTURER	CAPACITY	POWER TYPE	CONSUMPTION RATE		GUARANTEE PERIOD	AVERAGE LIFE	IN USE - NOT USED	DEPRICIATION RATE
									WORKING	IDLE				

MPUSE

PREVIOUS.USAGE

REGION CODE	ARRIVAL DATE	LEAVING DATE

MMONGCR

MONTH.G.CR

YEAR	MONTH

MLFAILCR

FAILURE.CR

BREAK DATE	REPAIR DATE	CODE OF PARTS REPLACED	TOTAL REPAIR COST	NAME OF FIRM	EXPLANATION

MGPVS

PRESENT.USAGE

WORKSITE CODE	ARRIVAL		LEAVING		OPERATOR CODE
	DATE	HOUR	DATE	HOUR	

MGPLAN

PLAN

WORKSITE CODE	ARRIVAL DATE	LEAVING DATE

MLPLNCR

MAINT.PLAN.CR

PART (SUBPART) CODE	REPAIR PERIOD	LAST REPAIR/MAINT. DATE	EXPLANATION

FIXED.ASSETS.CR

CODE	NAME	PURCHASE DATE	INITIAL PRICE	DEPRICIATION PERCENTAGE	DEPARTMENT USING

SPARE. PARTS. CR

WAREHOUSE NO	PART CODE	PART NAME	UNIT	QUANTITY REMAINING	TOTAL PRICE	MINIMUM STOCK LEVEL	MAXIMUM STOCK LEVEL	R.O.P.	R.O.Q

SPRNCR

SPDSPLCR

MPLSPCR

R.N.CR

PRICE	QUOTA

DEMAND. SUPPLY. CR

DEMAND DATE	DEMANDED QUANTITY	DEMANDED BY DEPARTMENT	FOR MACHINE (CODE)	SUPPLY DATE	SUPPLIED QUANTITY	ROLL NO	COST

SUPLRNCR

SPOSCR

SUPPLIER. MACH. CR

SUPPLIER CODE	NAME	ADRESS	INFORMATION

ORDER. SHIP. CR

ORDER DATE	ORDER QUANTITY	SUPPLIER CODE	DELIVERY DATE	DELIVERED QUANTITY	INVOICE NO	TOTAL PRICE

SPLOSCR

MLMDTLCR

MAINTENANCE. CR

MAINTENANCE DATE	CODE OF PARTS REPLACED	TOTAL MAINTENANCE COST	FIRM REPAIRING

PORTION OF SCHEMA FOR
MACHINE
OF TRUCK, PAINT & MARKETING

MACHINE.LIST

MACHINE CODE	MACHINE NAME (+Plate No if any)	MANUFACTUR. NAME	MANUFACTURER ADRESS	DELIVERY DATE	PRICE	CODE GIVEN BY MANUFACTURER	CAPACITY	POWER TYPE	CONSUMPTION RATE		GUARANTEE PERIOD	AVERAGE LIFE	IN USE NOT USED	DEPRICIATION RATE
									WORKING	IDLE				

MMONG

MONTH.G

YEAR	MONTH

MLFAIL

FAILURE

BREAK DATE	REPAIR DATE	CODE OF PARTS REPLACED	TOTAL REPAIR COST	FIRM REPAIRING	EXPLANATION OF FAILURE

MMPRL

. MACH. PLAN. REAL

PART CODE	ENTER. DATE	PLANNED BEGIN'G DATE	PLANNED ENDING DATE	CONFIRMATION	REALIZED BEGING DATE	REALIZED ENDING DATE

MLPLN

MAINT. PLAN

PART (SUBPART) CODE	REPAIR PERIOD	LAST REPAIR OR MAINT. DATE	DESCRIPTION OF MAINT.

FIXED. ASSETS

CODE	NAME	PURCHASE DATE	INITIAL PRICE	DEPRICIATION PERCENTAGE	DEDARTMENT USING

SPARE. PARTS

WAREHOUSE NO	PART CODE	PART NAME	UNIT	QUANTITY REMAINING	TOTAL PRICE	MINIMUM STOCK LEVEL	MAXIMUM STOCK LEVEL	R.O.P	R.O.Q

SPRN

SPDSPL

R.N.

PRICE	QUOTA

DEMAND. SUPPLY

DEMAND DATE	DEMANDED QUANTITY	DEMANDED BY DEPARTMENT	FOR MACHINE (CODE)	SUPPLY DATE	SUPPLIED QUANTITY	ROLL NO	COST

SUPLRN

SPOS

SUPPLIER. MACH

SUPPLIER CODE	NAME	ADRESS	INFORMATION

ORDER. SHIP

ORDER DATE	ORDERED QUANTITY	SUPPLIER CODE	DELIVERY DATE	DELIVERED QUANTITY	INVOICE NO.	PRICE

SPLOS

MPLSP

MLMDTL

MAINTENANCE

MAINTENANCE DATE	CODE OF PARTS REPLACED	TOTAL COST	FIRM NAME
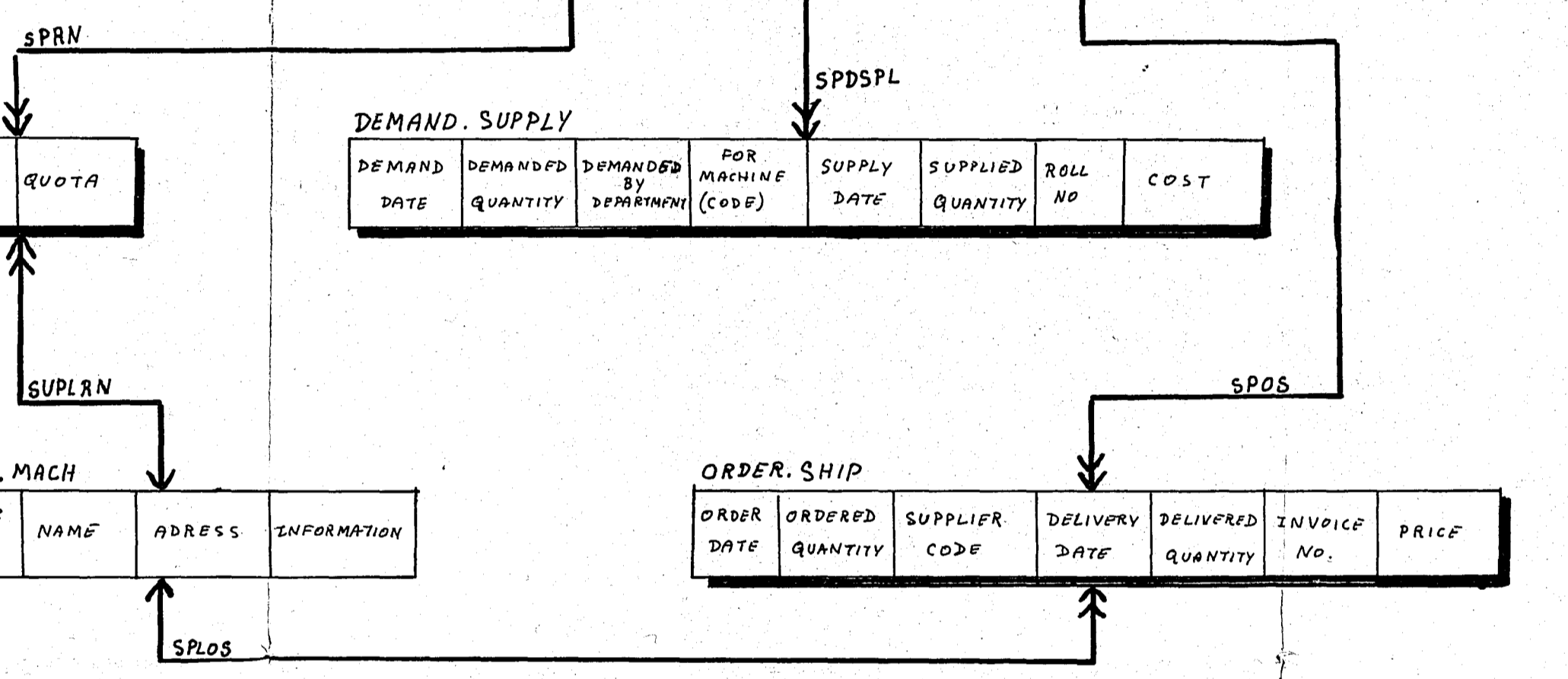
SHIPMNT. DETAIL (Marketing/Money)

INVOICE NO	INVOICE DATE	F.O.B	C & F m C.I.F.	MONEY UNIT	EXCHANGE RATE	DOLAR RATE	INTERMEDIATE BANK	CORRESPONDANT BANK	EXPORT TYPE	TRANSPORT. FIRM	BILL OF LADING NO	INSURANCE FIRM	POLICY NO	CUSTOM-BROKER	CUSTOMS MANIFEST. NO	MANIFEST. DATE	DECLARATION CREDIT CERTF NO	F.O.B	C & F (C.I.F.)	EXCHANGE RATE	DOLAR RATE	CURRENCY NO	BOND F.O.B	C.I.F (C&F)	EXCHANGE RATE	DOLAR RATE	TAX APPLICATION DATE	REFUND GROSS AMOUNT	NET AMOUNT	RECEIVE DATE

L.C. EXPORT (Marketing/money)

OPENNING DATE	VALIDITY	BANK CODE	REF. NO	AMOUNT	CURRENCY TYPE	EXPLANATION

PAYM. PLAN. EXP (Markt/Mon)

YEAR	MONTH	AMOUNT

$DPPE

PAYM. PLAN. DOMST (MARKT/M)

YEAR	MONTH	AMOUNT

(CONSTRUCTION /MONEY)

PREPAYMENTS MACHINE PREPARATION	MATERIAL PREPARATION	OTHERS	RESERVED AMOUNT (+	RECENT MONTH'S PREPAYMENTS	TOTAL GAINS	REPORT NO	REPORT DATE	COLLECTION DATE	RECEIVED AMOUNT	PREPAYMENTS NOT PAID

DEPT. DATA (TRUCK & PAINT /MONEY)

DEPT. CODE	DEPT NAME	ELECTRICITY USAGE PERCENTAGE	FUEL USAGE PERCENTAGE	WATER USAGE PERCENTAGE	MODEL (PART) CODE	TOTAL PRODUCTION TIME

MONTH. E

YEAR	MONTH

DDDC

DCMC

MEMC

DEPT. COST

YEAR	MONTH	DEPRICIATION	OVERHEAD	GENERAL COST	MODEL (PART) CODE	INDIRECT COST OF PART & FROM DEPT.

MODEL. COST

MONTH	MODEL (PART) CODE	AMOUNT PRODUCED	TOTAL DIRECT COST	TOTAL INDIRECT COST

MONTH.M

YEAR	MONTH

MMPAY

MMREC

TOTAL. PAYBLS

PAYABLE TYPE	DATE DUE	AMOUNT	CREDITOR

TOTAL. RECVBLS

RECEIVABLE TYPE	DATE DUE	AMOUNT	DEBITOR
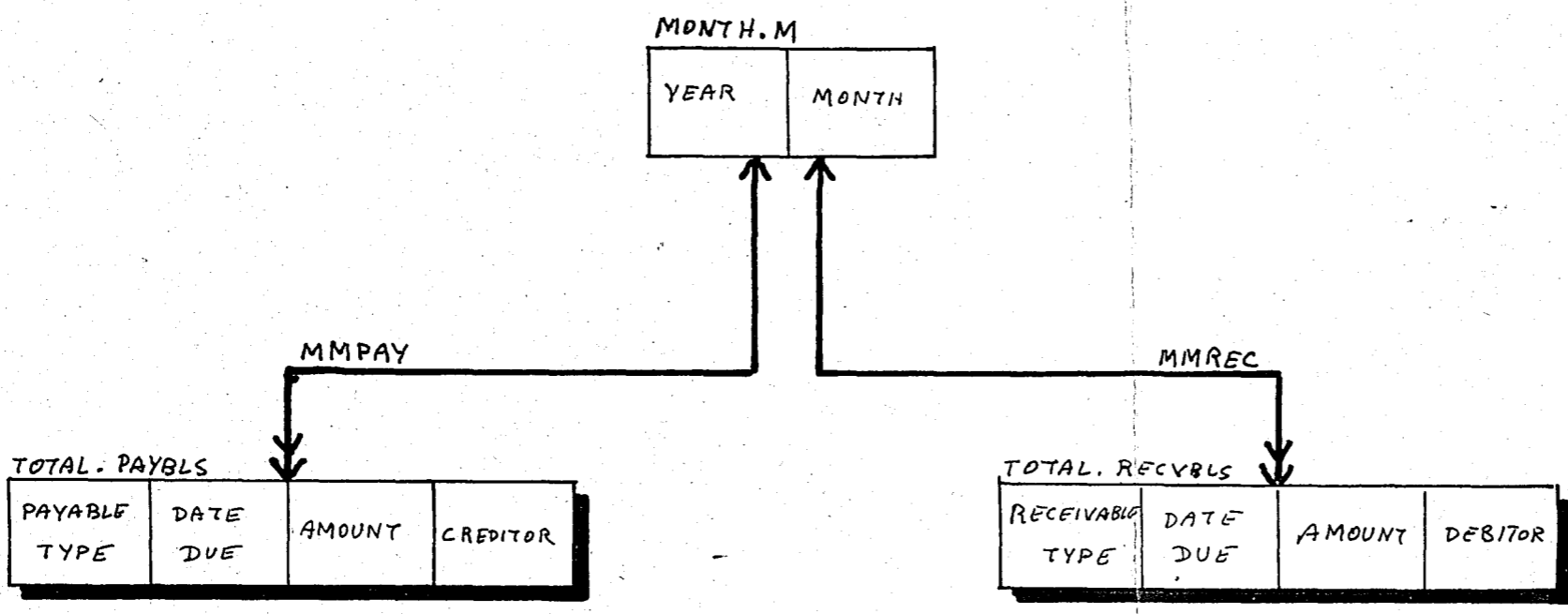
PERS.INDEX

IDENTIFICATION NO	NAME	COMPANY (REGION)

BANK.INDEX

BANK CODE	BANK NAME

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7. Hersan Construction and Trade Inc., Hesap Plani

8. Koç Toplulugu Muhasebe Plani ve Izahnamesi

9. Has Holding Muhasebe Kontrol El Kitabi