

REPORT DOCUMENTATION PAGE

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13. ABSTRACT (Maximum 200 words) Included in the CRAMTD Computer Integrated Manufacturing system for combat rations is a management system, Vendor Evaluation System (VES), to identify material vendors, associating them with purchases, and tracking their relative performance in terms of applicable criteria (previous short term project). That program is available for implementation in producer plants. A prototype Tailored VES (DPSC) was designed (this short term project) by CRAMTD/DPSC personnel to assist DPSC in its management of quality history records and product tracking. The Tailored VES (DPSC) was developed and installed on the database server at the CRAMTD Demonstration Site and remote access provided to DPSC. It uses an Oracle 7 database management system and contains the USDA inspection data as collected by their Operational Ration Database system. The prototype system is serving as a stepping stone to test system functionality and performance. A follow-on contract would be required to complete the project, incorporate additional data sources, and customize data analysis to fulfill additional DPSC requirements.			
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1.0 CRAMTD STP #60

Results and Accomplishments

1.1 Introduction and Background

STP#60 started November 1, 1995 based on technical and cost proposals dated November 10, 1995 that were submitted to the DLA on November 10, 1995 and ended June 29, 1996. Final approval for the project was received on January 11, 1996. The broad objective of the project was to develop and demonstrate an expanded Vendor Evaluation System with integrated quality information relevant as a management decision making tool for DPSC-HR quality and management personnel.

The Center for Advanced Food Technology (CAFT) has developed under the Combat Ration Advanced Manufacturing Technology Demonstration Contract (CRAMTD), a computer integrated manufacturing (CIM) system for combat rations. Included in the CIM system is a management system to identify material vendors, associating them with purchases, and tracking their relative performance in terms of applicable criteria. The Vendor Evaluation System (VES) structure was developed to meet the needs that an enterprise, such as a combat ration producer, would be facing. That program is now available for implementation in producer plants, and also could be used in contracting offices within DLA.

In the course of considering VES for a purchasing office, the idea of expanding it to help DPSC manage Quality History Records, for evaluating vendors, and for tracking product was conceived. Currently, no system exists which permits the integration of the various quality data bases which are maintained on operational rations. These data bases include contractor origin and assembly records, USDA origin records, and Veterinary records. Massive amounts of various computer and paper records are stored but are very difficult to retrieve in a timely and useful fashion for effective decision making. The concept of an Automated Quality History Records Evaluation (AQHRE) system includes expanding the capability of the VES to receive and analyze the wider variety and volume of data. Further, the criteria to be used for flagging information for management action needs to be established, and a program for implementing it, training users, and helping management achieve benefits needs to be developed.

The expected benefits designed into the system should include 1) quicker recognition and correction of quality problems as they occur in the system (industry), before they grow into more expensive situations, and 2) faster feed back to contractors, which should enable and incentivize them for continual improvement of processes that will yield better quality in their own plants. Knowing that the extent of process variation and the current level of quality in their plants will be used by DPSC as factors in a Best Value process for making future contract awards, should be a significant incentive to most producers.

1.2 Results and Conclusions

A prototype Vendor Evaluation System (VES) computer-based application was designed, developed, and installed on the database server at the Center for Advanced Food Technology, Food Manufacturing Technology (FMT) Facility and remote access was provided to DPSC. The VES application uses an Oracle 7 database system and contains the USDA inspection data as collected by their Operational Ration Database (ORDB) system. The underlying database structure for the VES application was designed to facilitate quality information from various sources as well as contract information.

The prototype system is intended as a stepping stone to test system functionality and performance. Due to the scope of this project, the VES application had to be limited to one data source. A follow-on contract would be required to complete the project and incorporate additional data sources. Also, at that time, data analysis would be customized to fulfill additional DPSC requirements.

1.3 Recommendations

It is recommended that the Final Phase of this project be pursued with the following objectives:

- Complete the automatic electronic data transfer between the ORDB and the VES application.
- Assist USDA in upgrading the ORDB to improve data consistency
- Analyze the AVI database and develop strategies to incorporate their data into the VES database. If feasible add the AVI data to the VES application.
- Develop database application for producers to store pertinent quality data and electronically send to DPSC
- Improve efficiency, flexibility and functionality of the VES by utilizing data warehousing concepts and tools
- Continue to customize data analysis tools to the specific requirements of DPSC
- Implement an Oracle system at DPSC and add the Vendor Evaluation application.

2.0 Program Management

STP #60 was a two-phase work activity. The two phases had the following general objectives:

- | | |
|-----------------|---|
| Phase I | System Definition: define the system requirements based on strategic and functional analysis |
| Phase II | Prototype Development: design and develop a prototype evaluation system based on the system requirement identified in Phase I |

During Phase I, the CRAMTD team will meet with key DPSC personnel to determine the required features to be provided. A functional architecture will define the system (computer hardware and software) requirements.

A prototype VES, modified to meet DPSC requirements, will be designed and developed at the CRAMTD Demonstration site during Phase II. Remote access to the prototype system from DPSC will be provided and will be used to demonstrate VES. The specifications for a full implementation at DPSC, in a subsequent Phase III, will be defined.

The work activity and status are illustrated on the attached Figure 1, CRAMTD STP#60 "Vendor Evaluation System," Time and Event Milestones (Appendix 4.1).

2.1 Summary of STP Accomplishments

- Following three meetings held at DPSC on December 8, January 23, March 12th, the VES system definition was established.
- Expanded, at DPSC request, the functional model to include trend analysis.
- The prototype VES was implemented on the ORACLE 7 DBMS running on a Server at the Food Manufacturing Technology Facility.
- Imported data from USDA, including filtering and normalizing, into the VES database.
- Developed a working set of forms and graphs to provide a graphical user interface to analyze and display data.
- Established remote access to the FMT Facility VES from DPSC.
- Demonstrated the prototype VES, using remote access, at DPSC.

3.0 Short Term Project Activities

3.1 STP Phase I Tasks

3.1.1 Problem and Requirement Specification (Task 4.2.1.1)

The first meeting was held at DPSC on December 8, 1995 to initiate work on this short term project. The main priority was to document the combat ration production, assembly and inspection system. A second meeting was held on January 23, 1996, at which time discussions were focused on the required functionality of the VES application. Based on the outcome of both meetings, requirements specifications of the VES application were formulated.

3.1.2 Analysis and System Definition (Task 4.2.1.2)

Based on the information gathered during the meetings with DPSC, the requirements of the VES application were analyzed and a system definition established. It was determined that the VES application should be installed on a Oracle database system to give it the stability and expandability required in this potential large database application. It was also recommended to develop first a prototype system, using the Oracle database system at CAFT with remote access capability for DPSC. The data source for the prototype would be the USDA inspection data.

3.1.3 Requirements Confirmation (Task 4.2.1.3)

On March 12, 1996, an end of Phase I review was held at DPSC. The following subjects were reviewed during this meeting, and a copy of this presentation is attached (Appendix 4.2): The Vendor Evaluation Systems communication and data flow diagrams, the hardware and software requirements, the process flow diagram at both the retorter as well as at the assembler, the various sources of data that are anticipated to be handled by the system, the data model and the functional model. At the request of DPSC, the functional model was expanded with a trend analysis to analyze and compare the quality data on a time scale. Agreement was reached with DPSC at this meeting to proceed with the prototype as presented. The prototype would be based on information contained in the USDA operational database.

3.2 STP Phase II Tasks

3.2.1 Prototype Database Development (Task 4.2.2.1)

The design of the Vendor Evaluation System application started after approval was obtained from DPSC. The design activities were divided into several sub activities. The first activity focused on designing the actual database tables with all their entities and relationships. A copy of the database design and a description of the entities are attached as Appendix 4.3. The

second activity focused on importing the ORDB data from the USDA into the VES database. This process is a rather complex task as it has to filtered and normalize the data before it can be added to the VES application. Extensive dialogs were held with DPSC personnel to accomplish the normalization of the data. The third activity focused on designing the forms and graphs that are used to enter, analyze and display the data.

3.2.2 Prototype Remote Access (Task 4.2.2.2)

Remote access capabilities were installed at the CAFT facility in Piscataway and at DPSC in Philadelphia, using PCAnywhere software and high speed 28,800 baud modems. The PC at DPSC will connect to a host PC at CAFT which is setup to run the vendor evaluation system application. Various security functions, such as two level passwords, are build into this remote access link which prevents unauthorized access and use of this database application.

3.2.3 Demonstration (Task 4.2.2.3)

Installation and demonstration of the prototype VES was accomplished on May 28, 1996 at DPSC. A presentation was also given on June 19 1996 at the End Contract Briefing of the CRAMTD program. A copy of data entry and analysis screens are attached as Appendix 4.4. Dialogs with the USDA and DPSC continued till the end of the contract to establish protocols that would automatically update the VES application with data from the USDA ORDB system.

4.0 Appendix

- 4.1 Figure 1 CRAMTD STP #60 Time and Events Milestones**
- 4.2 Phase I Review, Vendor Evaluation System, March 12, 1996, DPSC**
- 4.3 Database Design and Entry Description**
- 4.4 Data Entry and Analysis Screens**

**Figure 1 - CRAMTD Candidate Short Term Project #60
Vendor Evaluation System
Program Plan and Schedule**

Task Name	Reference	1995				1996				
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Phase I										
Problem & Requirements Spec	4.2.1.1									
Analysis and Systems Def	4.2.1.2									
Requirements Confirmation	4.2.1.3									
Phase II										
Prototype Database Development	4.2.2.1									
Prototype Remote Access	4.2.2.2									
Demonstration	4.2.2.3									
Final Report	4.2.2.4									

Printed: 07/3/96

Meeting Agenda DPSC, March 12, 1996

Introduction (Rieks)

VES Database System: Communication and Data Flow Diagrams (Rich)

First Prototype

Final Version

Hardware and Software Requirements (discussion with MIS)

First Prototype

Final Version

Process Flow Diagram (Peter)

overheads

Data Sources (Rieks)

USDA ORDB

ORDB issues

AVI

Producers (Retorters and Assemblers)

Contracting

Shipment

Data Model (Peter & Rich)

Functional Model (Power Point Presentation by Igg)

Setup Data

Data Import

Raw Data Analysis

Vendor Evaluation

Next Steps (Rieks):

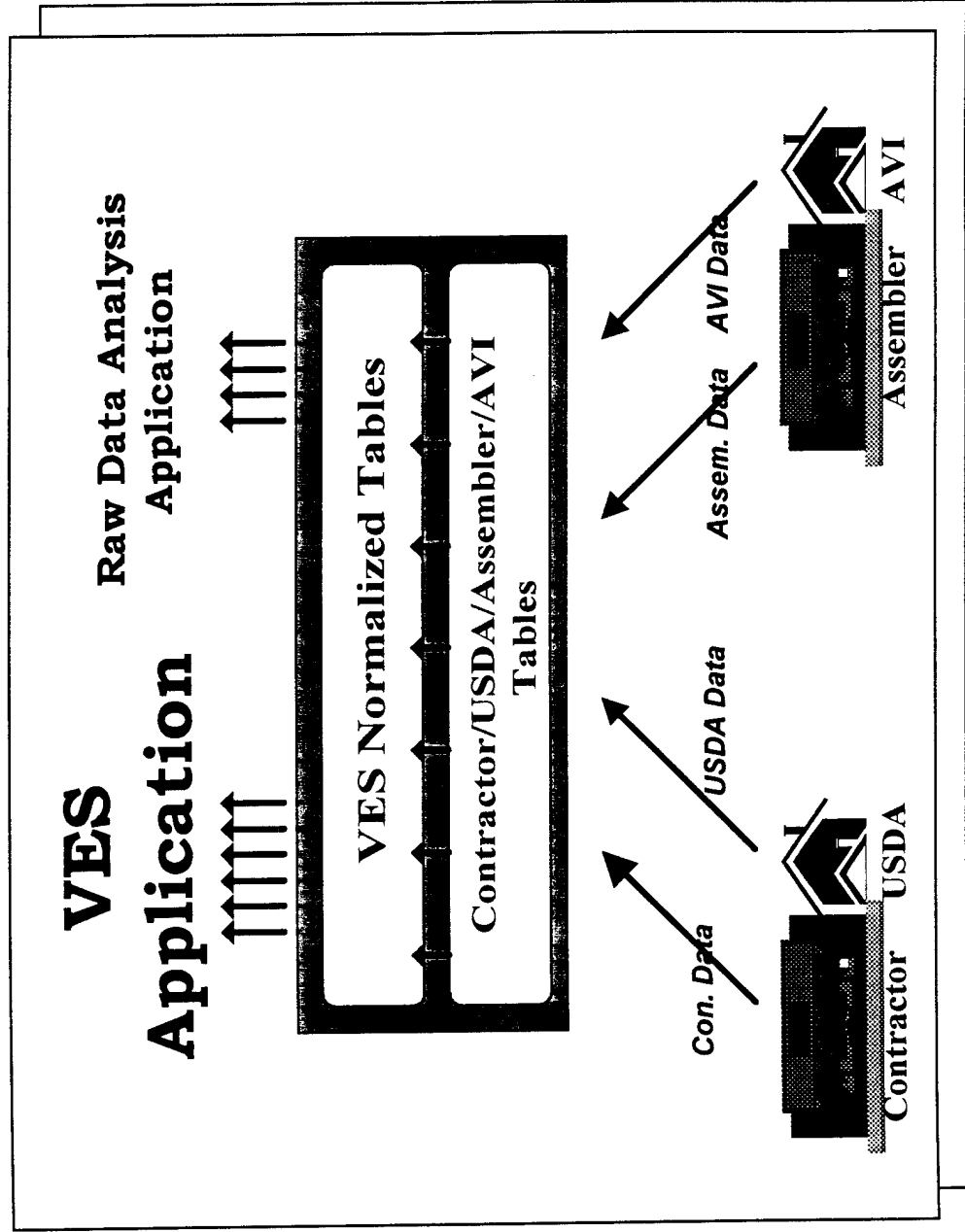
Approval to proceed

Coding of the database

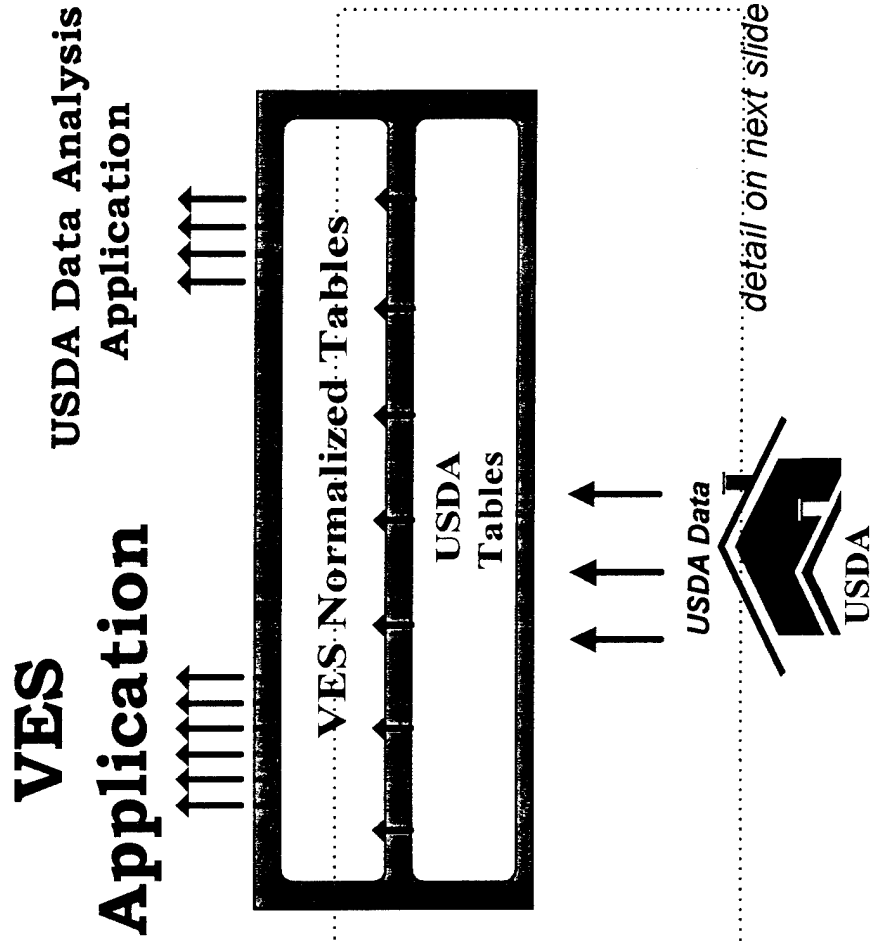
Importing USDA data

Discussion with DPSC key personnel to agree on next steps

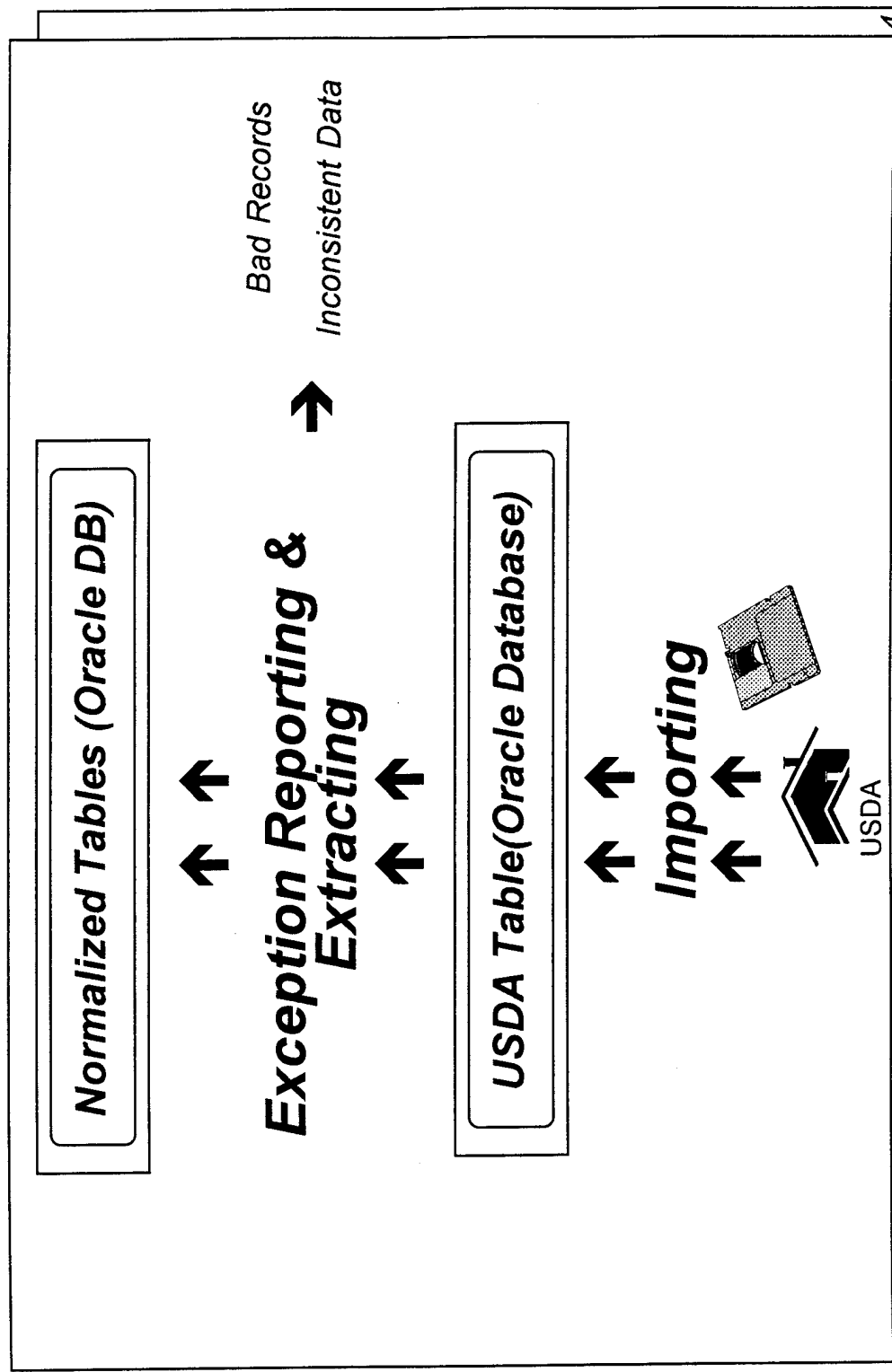
DPSC Vendor Evaluation System



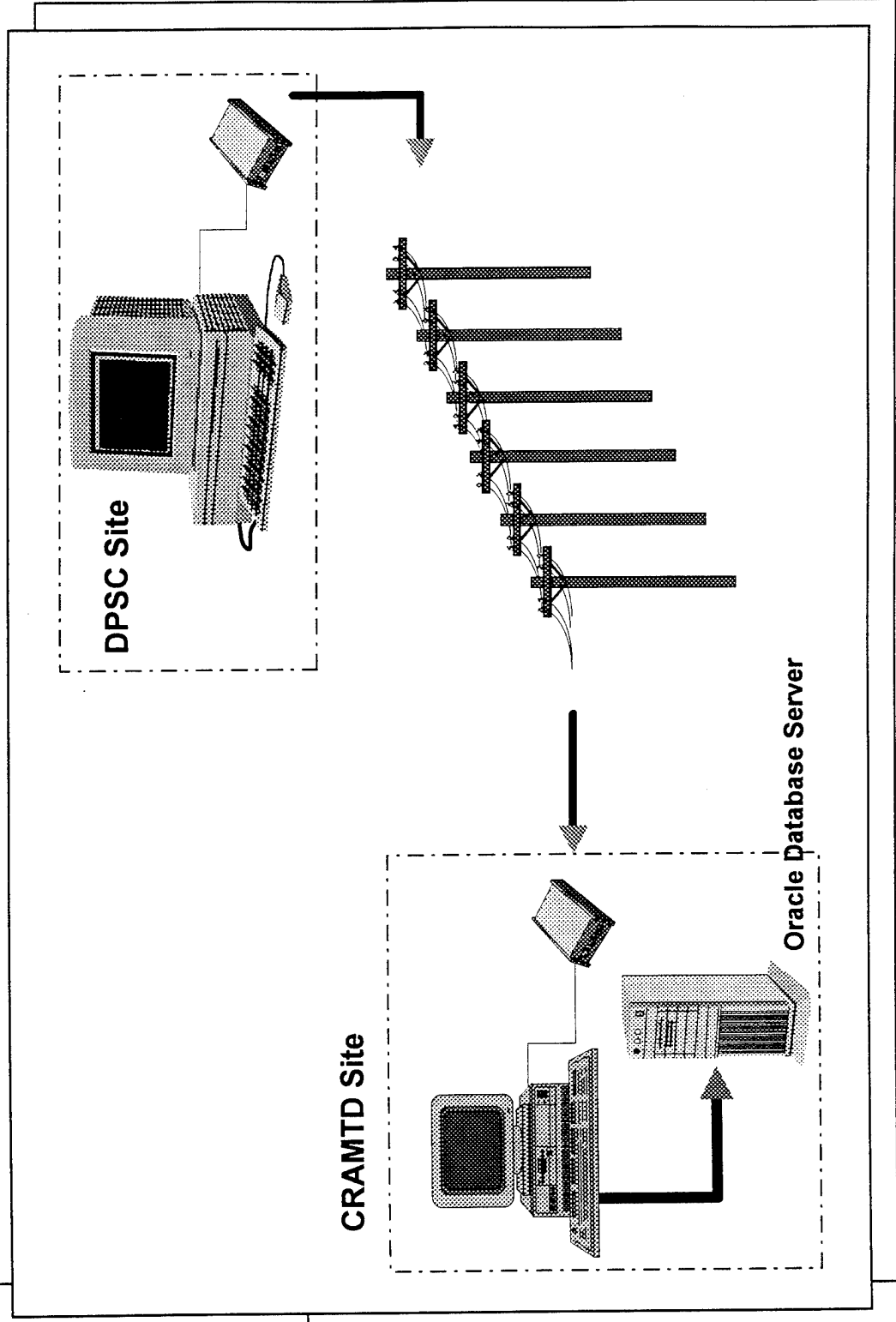
□ Prototype VES (may 1996)



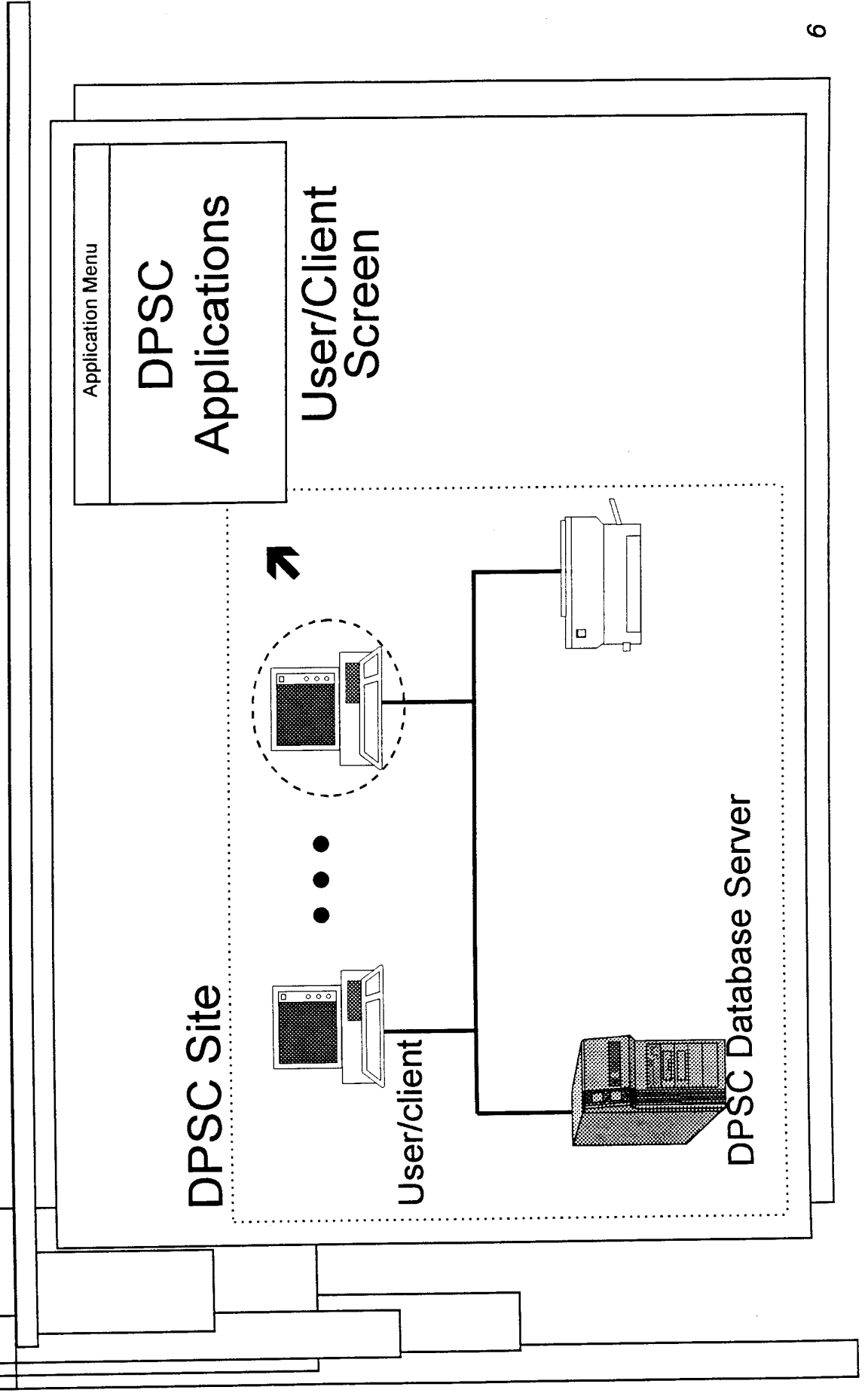
Detail on USDA-Oracle DB data flow



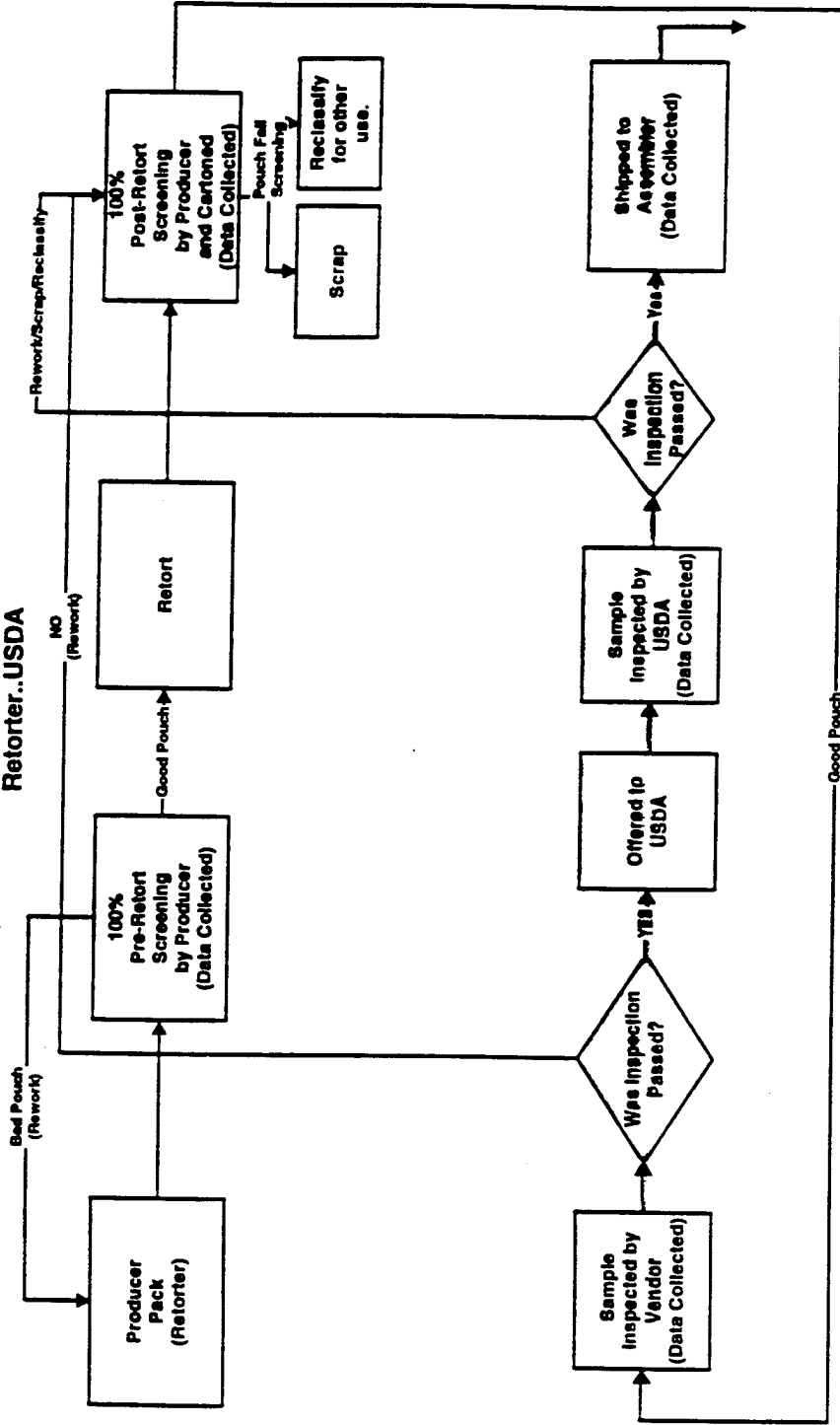
Communication Model (may 1996)



Communication Model (final)



DPSC MRE PROCESS FLOW Retorter..USDA



GENINFO.DB

Field Name	Type	Size	Key
Lot_number	N		*
Sublot_ID	A	10	*
MRE_number	N		*
Company_Code	A	3	*
Product_Code	A	3	*
Product_Name	A	15	
Contract_Number	A	16	
Type_of_Product	A	20	
Container-type	A	5	
Container_size	A	10	
Number_per_case	N		
Date_updated	D		
Quantity-produced	N		
Quantity-inspected	N		
Date-produced	D		
Date-init-inspection	D		
Date-final-disposition	D		
Lot-completed	A	3	
A1	A	1	

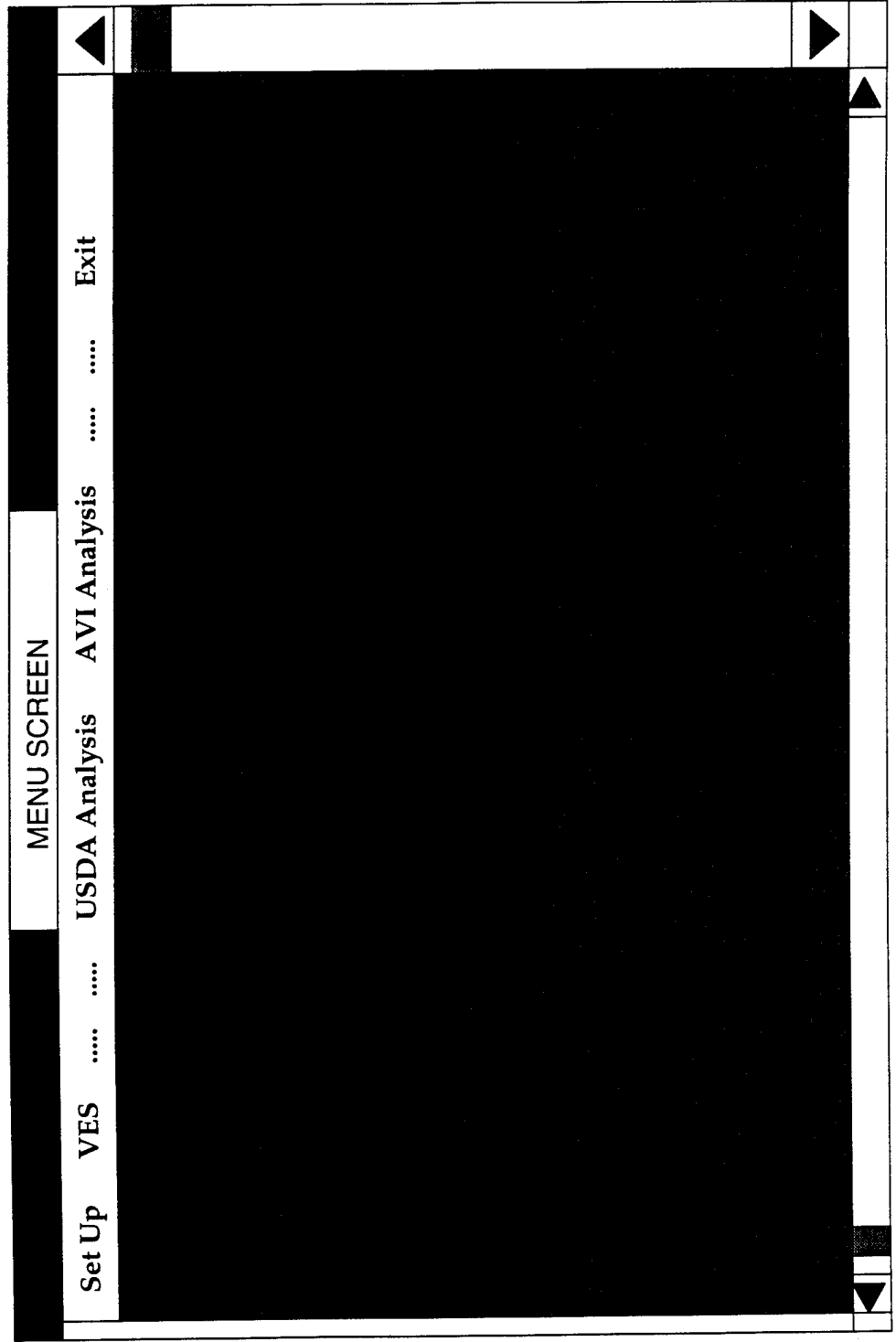
FAILINSP.DB

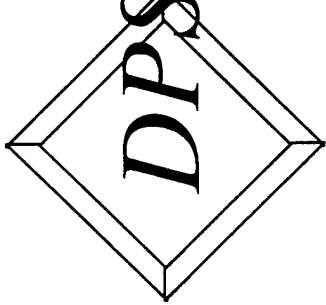
Field Name	Type	Size	Key
Lot_Number	N		*
Sublot_ID	A	10	*
MRE_number	N		*
Company_code	A	3	*
Product_Code	A	3	*
Defect_reason	A	55	*
Date-on-hold	D		
Comments	A	255	
Date-updated	D		
Date-reinspected	D		
Pass-reinspection	A	3	
Reason-fail-reinspection	A	55	
Date-reworked	D		
Number_Defects	N		
Sample_size	N		
A1	A	1	

ENDINFO.DB

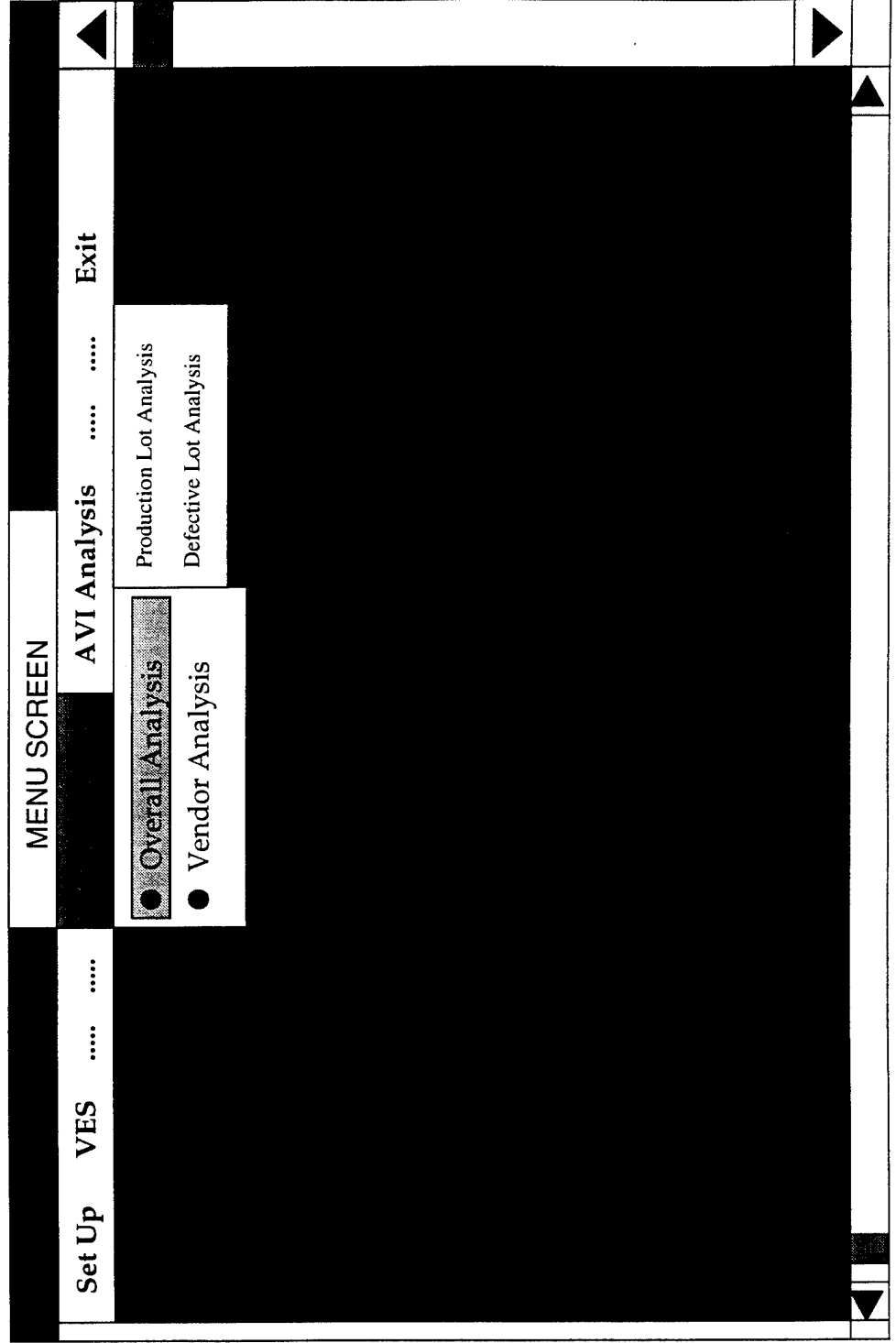
Field Name	Type	Size	Key
Lot_number	N		
Sublot_ID	A	10	
MRE_number	N		
Company_code	A	3	
Product_code	A	3	
Document_number	A	7	
Document_Type	A	17	
Document_date	D		
Units_quantity	N		
Units_per_case	N		
Cases_quantity	N		
Destination	A	25	
Date_updated	D		
A1	A	1	

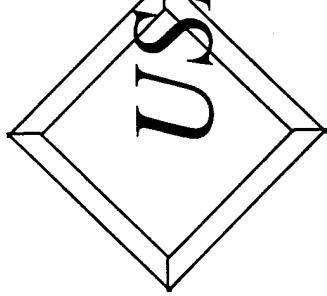
DPSC *Application Screen*





DPS&C Application Screen





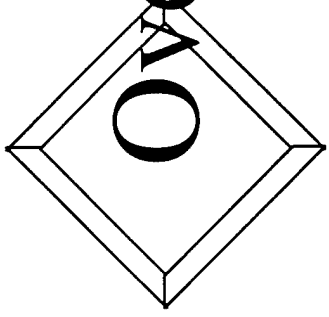
USDA Data Analysis

❖ Overall Analysis:

– Production Lot Analysis

– Defective Lot Analysis

❖ Vendor Analysis

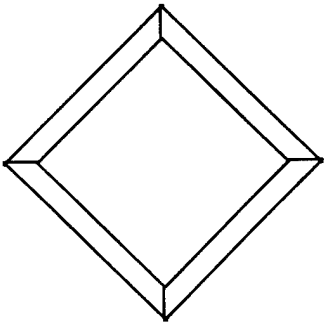


Overall Analysis:

Production Lot Analysis

% of Lots Rejected and Accepted :

- for a given product
- by all or specific contractor(s)
- for an interval period
- for a given MRE Period(s)



USDA Data Analysis

Show List Exit

Reject/Accept A. MRE Pouch

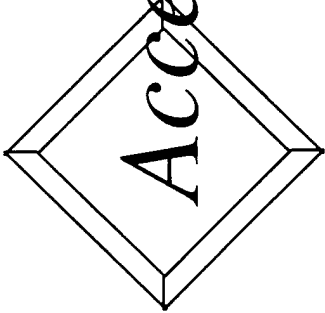
% (all) % (all)

1st Inspe

1. Pie Chart
2. Bar Chart
3. Linear Chart
:

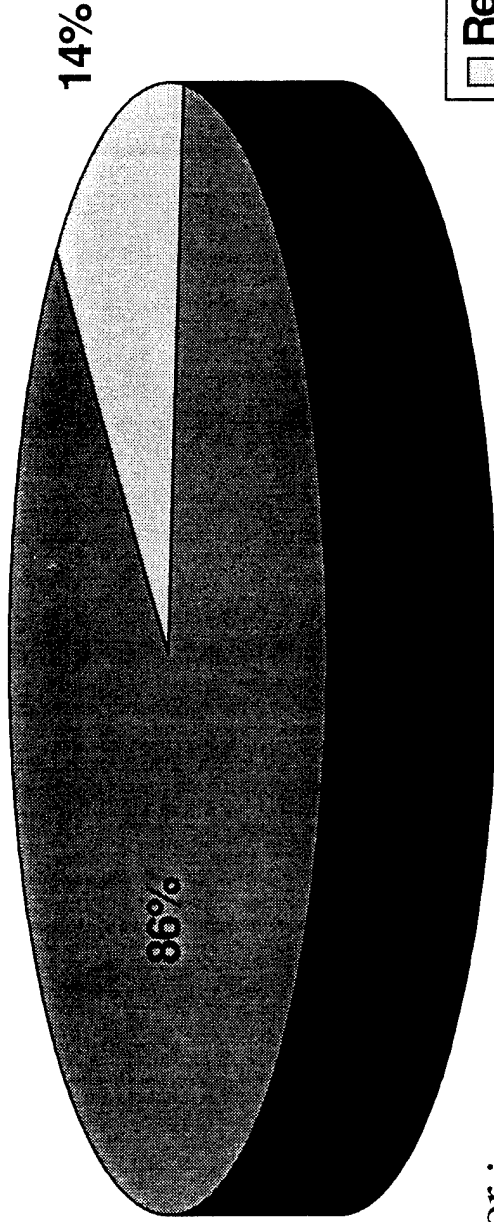
01/01/94 01/01/96

- Form for Lot Reject/Accept Analysis on a Product
- Ex: Product is MRE Pouch and Chart is Pie Chart
- The Result of the above execution is shown on the next slide



Accept/Reject Analysis Sample

All MRE Pouch Producers



For :

All Contracts

All Data from 01/01/94 - 01/01/96

Reject/Accept based on 1st USDA Inspection



USDA Data Analysis

❖ Overall Analysis:

– Production Lot Analysis

– Defective Lot Analysis

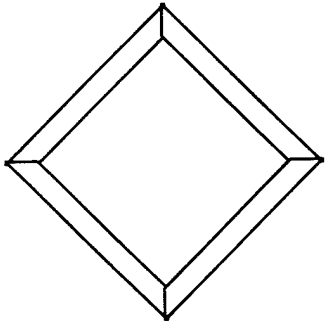
❖ Vendor Analysis

Overall Analysis:

Defective Lot Analysis

% of Lots Rejected based on all defect types:

- for a given product
- by all or specific contractor(s)
- for an interval period
- for a given MRE Period(s)



USDA Data Analysis

Show List Exit

Defective Type A. MRE Pouch

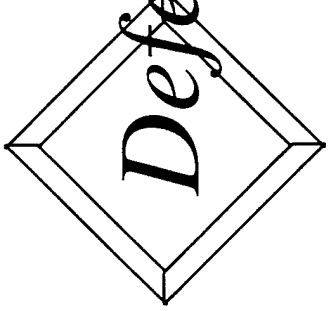
% (all) % (all)

1st Inspe

01/01/94 01/01/96

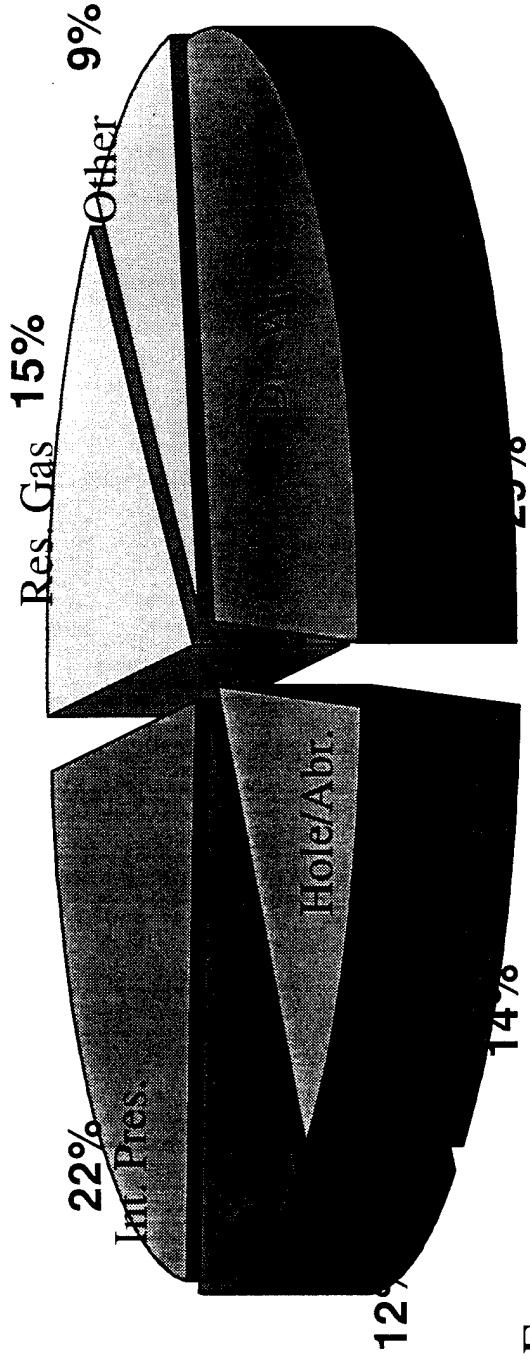
1. Pie Chart
2. Bar Chart
3. Linear Chart

- Form for Lot Defect Analysis on a Product
- Ex: Product is MRE Pouch and Chart is Pie Chart
- The Result of the above execution is shown on the next slide



Defective Lot Analysis Sample

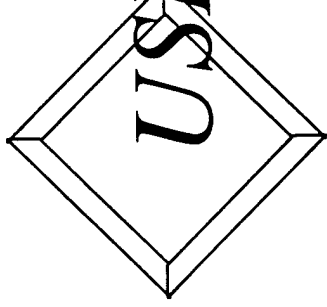
MRE Defect Type - All Contractors



For:

Data from 01/01/94 - 01/01/96

Reject/Accept based on 1st USDA Inspection

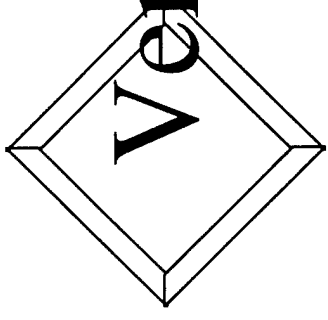
The logo consists of a diamond shape formed by two concentric lines. The text "USDA Data Analysis" is written in a serif font, with "USDA" in a larger, bold font and "Data Analysis" in a smaller font, all contained within the diamond.

USDA Data Analysis

❖ Overall Analysis:

- Production Lot Analysis
- Defective Lot Analysis

❖ Vendor Analysis

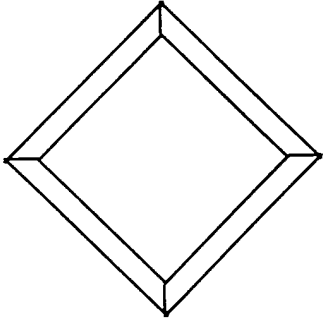


Vendor Analysis:

% of Lots Rejected based on a specific defect type:

- for a given product
- by all or specific contractor(s)
- for an interval period
- for a given MRE Period(s)

(Concentrated on a particular defect rather than all defect types)



USDA Data Analysis

Show List Exit

MRE Pouch Holes

% (all) % (all)

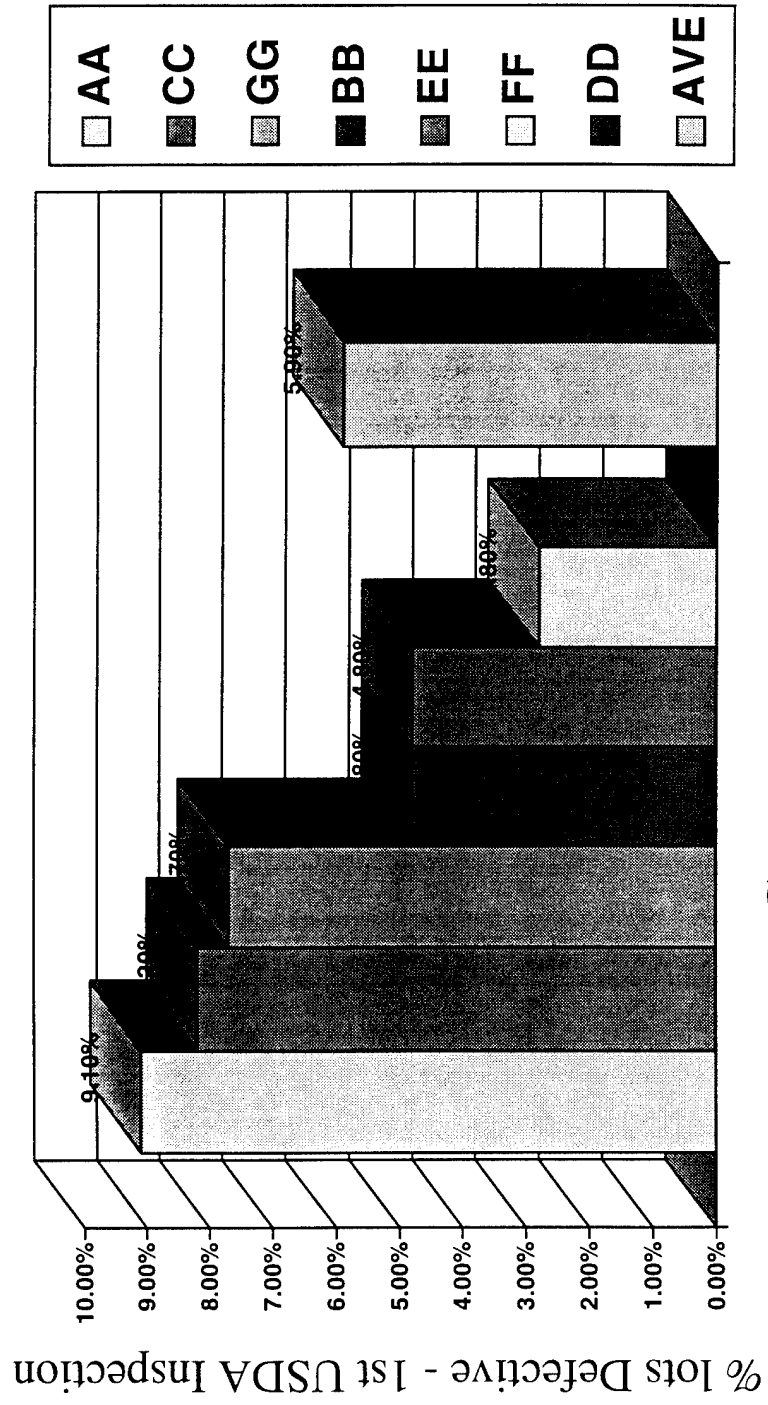
1st Inspected

01/01/94 01/01/96

1. Pie Chart
2. Bar Chart
3. Linear Chart
:

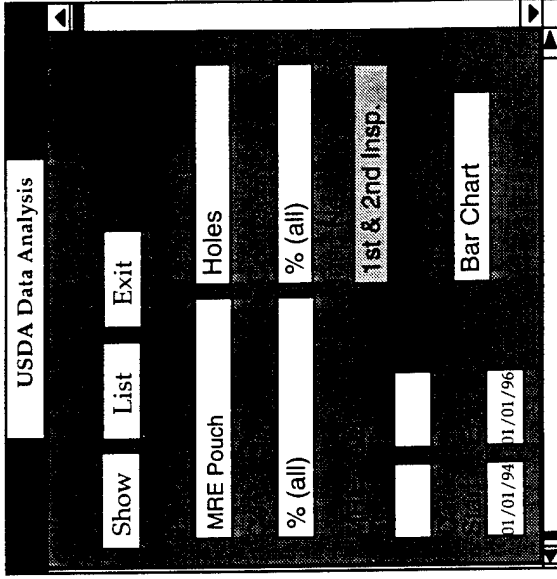
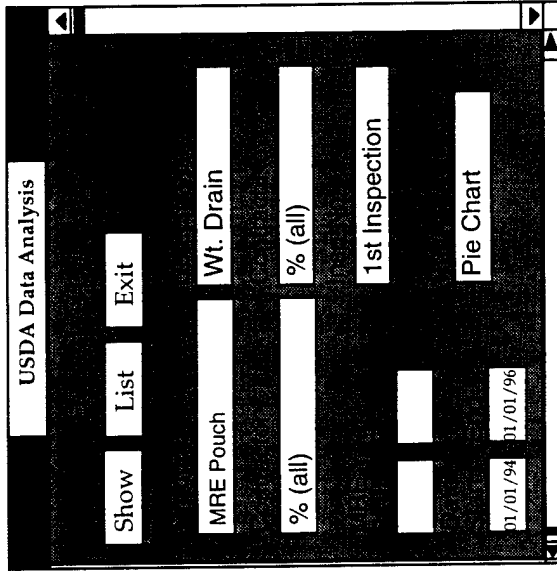
- Form for USDA Data Analysis based on Defect
- Ex: Defect is Holes and Bar Chart is selected from the list of value
- The Result of the above execution is shown on the next slide

HQLES-Retort Pouches by Contractors for MRE Pouch

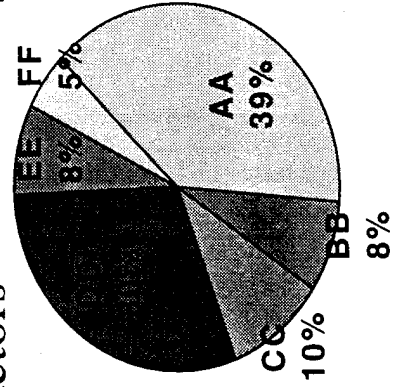


Contractors

More Samples



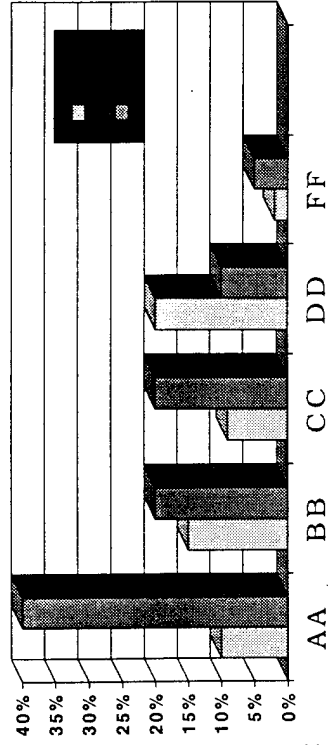
Wt. Drain -
All Contractors



For :
For All data from 01/01/94 - 01/01/96
Reject/Accept based on 1st USDA Inspection



Holes - All Contractors



For :
For All data from 01/01/94 - 01/01/96
Reject/Accept based on 1st & 2ND USDA Inspection

Designer/2000

Report : ENTITIES AND THEIR DESCRIPTIONS

Filename :

Run by : DPSC

Report Date : 03-JUL-96 03:00pm

Total Pages : 8

Parameter Values

Application System : VENDOR
Version : 1
Diagram :

Entities Created

On/After :
On/Before : 03-JUL-96

Entities Changed

On/After :
On/Before : 03-JUL-96

Entity Name	Short Name	Description
CIS-DEF	CIS-DEF	This entity represents a place holder for USDA raw data from the CIS-DEF table.
CISINFO	CISINFO	This entity represents a raw data holder for the USDA data table CISINFO.
CONTAINER	CONT	This entity represents the various containers that products can be packaged in. Examples include 8oz. Pouch, 6 pound Tray Pack. Each container has a Container Type.
CONTAINER TYPE	CONTYPE	This entity represents the various types of containers that products can be packaged in. Examples include POUCH, TRAY PACK.
CONTRACT DELIVERY SCHEDULE	CDS	This entity represents the proposed delivery schedule for each of the contracted line items for a contract between two Organizations. The proposed delivery schedule is compared with the actual delivery information to determine timeliness of delivery.
CONTRACT HEADER	CONT_HDR	This entity represents header information that pertains to an entire contract between two organizations. An example of a contract would be a contract between DPSC and a manufacturer to produce a certain quantity of product. This product may be delivered over the course of several months or a year.

Entity Name	Short Name	Description
CONTRACT PRODUCT	CONTPROD	This entity represents the products that are to be produced for a given Contract. more than one product can be produced for a given contract. For contracts that are renewed or extended, additional line items in this entity will be added. The contract year is then used to distinguish sets of line items. Each line item in Contract Products can be delivered according to a proposed Contract delivery schedule.
CRITERIA	CRITERIA	This entity represents the various criteria that are used to evaluate products, lots, organizations, etc.
DATA_SOURCE	SOURCE	This table will be used to define the different types of data sources. e.g. Vendor, USDA, AVI, Assembler, etc. "Vendor" is preferred as opposed to the name of the vendor. This is for simplicity in writing code.
ENDINFO	ENDINFO	
EVALUATION	EVALUATION	This entity represents an evaluation carried out on a product lot, organization or trend in production.
EVALUATION SCORE	ES	This entity represents the set of scores recorded for a given evaluation.
EVALUATION_TYPE	EVALTYPE	This entity defines the evaluation types that may be performed. e.g. Product, vendor, shipping, production trend, etc.

Entity Name	Short Name	Description
-------------	------------	-------------

FAILINSP

FAILINSP

GENINFO

GEN

INSPECTION DETAIL

INSP_DET

This entity represents detailed results of inspection procedures carried out on a product lot.

INSPECTION PROCEDURE

INSPPROC

This entity represents inspection procedures that may be carried out on product lots to determine the quality and safety of the product lot.

LOT ACTIVITY TYPE

LOT_ACT

This entity represents that various activities that can occur with a lot. Examples include Production, Inspection, Shipment, Receipt, Scrap, Rework, etc.

LOT HISTORY

LH

This entity represents a historical view of everything that happens with a product lot. Any activity (represented by an Activity type) is recorded giving a complete time line of the life of a lot.

LOT INSPECTION HEADER

LIH

This entity represents common information for a set of inspections carried out on a product lot. Information in the header includes who did the inspection, the date the inspection was done, etc.

LOT QUALITY

LQ

This entity represents a cross reference between an evaluation event and a product lot that is being evaluated.

Entity Name	Short Name	Description
ORGANIZATION	ORG	This entity represents the various organizations in consideration. These include any producers, manufacturers, suppliers, shippers, vendors, inspectors and other contractors.
ORGANIZATION LOCATION	ORG_LOC	This entity represents the various locations (addresses, phone numbers, etc.) of the organizations.
ORGANIZATION PRODUCT	OP	This entity represents a cross reference showing an organization and the products it makes.
ORGANIZATION TYPE	ORGTYP	This entity represents a lookup table for the different types of organizations. For example, PRODUCER, ASSEMBLER, SHIPPER, INSPECTOR, etc.
ORGANIZATION TYPE XREF	OTX	This entity represents a cross reference between an Organization and one or more Organization types. This allows us to associate several types to an Organization such as a producer who also acts as an assembler.
PERSON	PERSON	This entity represents the various people who may work on behalf of an organization. Generic "people" can be entered as well such as "USDA" Inspector" if no real name is known.

Entities and their Descriptions

Entity Name	Short Name	Description
PROCESS	PROCESS	This entity represents the fashion in which a product is produced. Examples include Thermostabilized, low water content stable, non-shelf stable.
PRODUCT	PRD	This entity represents the various products in consideration.
PRODUCT CLASS	PC	
PRODUCT INSPECTION PROCEDURE	PRDINPRO	This entity represents a cross reference between a product and the various inspection procedures used to evaluate it.
PRODUCT LOT	PRODLOT	This entity represents lots of product that are produced by an organization. Split Lot information is also maintained in this entity. Examples of lots include individual products such as pouches as well as conglomerate products such as unitized rations.
PRODUCT_REF	PR	
SHIPPING DETAIL	SHIPDET	This entity represents detailed line items for a shipment of product. More than one product may be sent in a shipment.
SHIPPING HEADER	SHIPHEAD	This entity represents a shipment of products from one organization to another. The shipment header contains common information for the entire shipment such as the source and destination organization/locations, the date, the shipping company used, etc.

Entity Name	Short Name	Description
B LOT	SUBLOT	This entity represents a breakdown of the sub lots used to make up a product lot.
STSTAT	TESTSTAT	This entity represents USDA test data for product lots.
M	UOM	

ORGANIZATION PRODUCT

Made by

INSPECTION DETAIL
o PASS FAIL
o INSPECTION DETAIL ID
o COMMENTS
o DATE INSPECTED
o NUMBER DEFECTS
o SAMPLE SIZE
o SAMPLE SIZE TAKEN
o TEST RESULT

The inspection detail for

The inspection header of

LOT INSPECTION HEADER
o INSPECTION ID
o LOT QUANTITY INSPECTED
o DATE TIME INSPECTION
o LOT QUANTITY ACCEPTED
o LOT ACCEPTED
o COMMENTS

o
o
o
o

done by

an inspection record for

Based on data supplied by

The supplier of data is

DATA SOURCE
o SOURCE TYPE
o SOURCE DESCRIPTION

The inspector is

PERSON
o PERSON ID
o FIRST NAME
o MIDDLE INITIAL
o LAST NAME
o INITIALS
o POSITION

SUB LOT
o SUB LOT ID
o SUB LOT QTY

Makes

Working for

ORGANIZATION TYPE/ISSUE

A Reference to

Type for

LOCATION
o LOCATION ID
o ADDRESS
o ADDRESS2
o ADDRESS3
o CITY
o STATE
o ZIP
o LOCATION SLETT

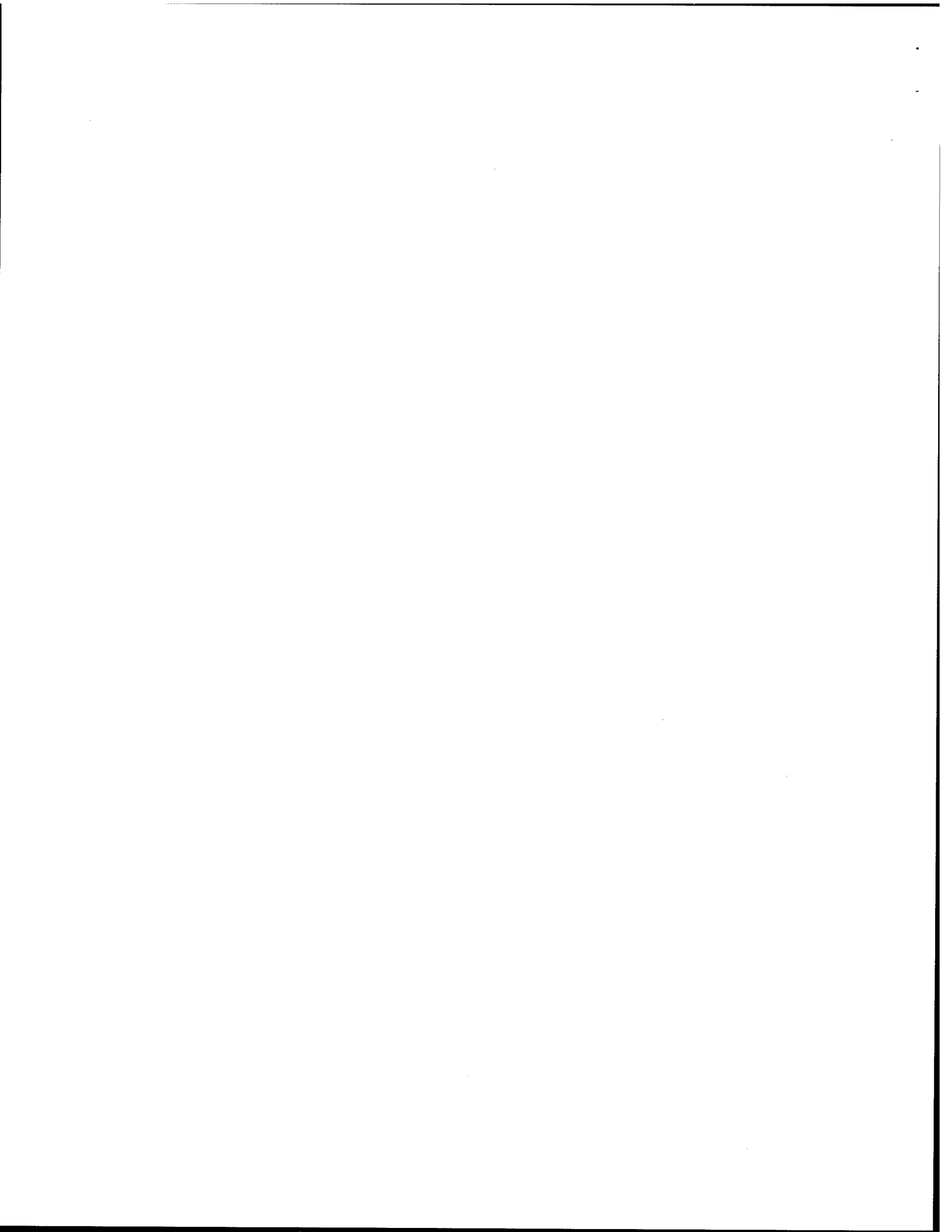
A Location

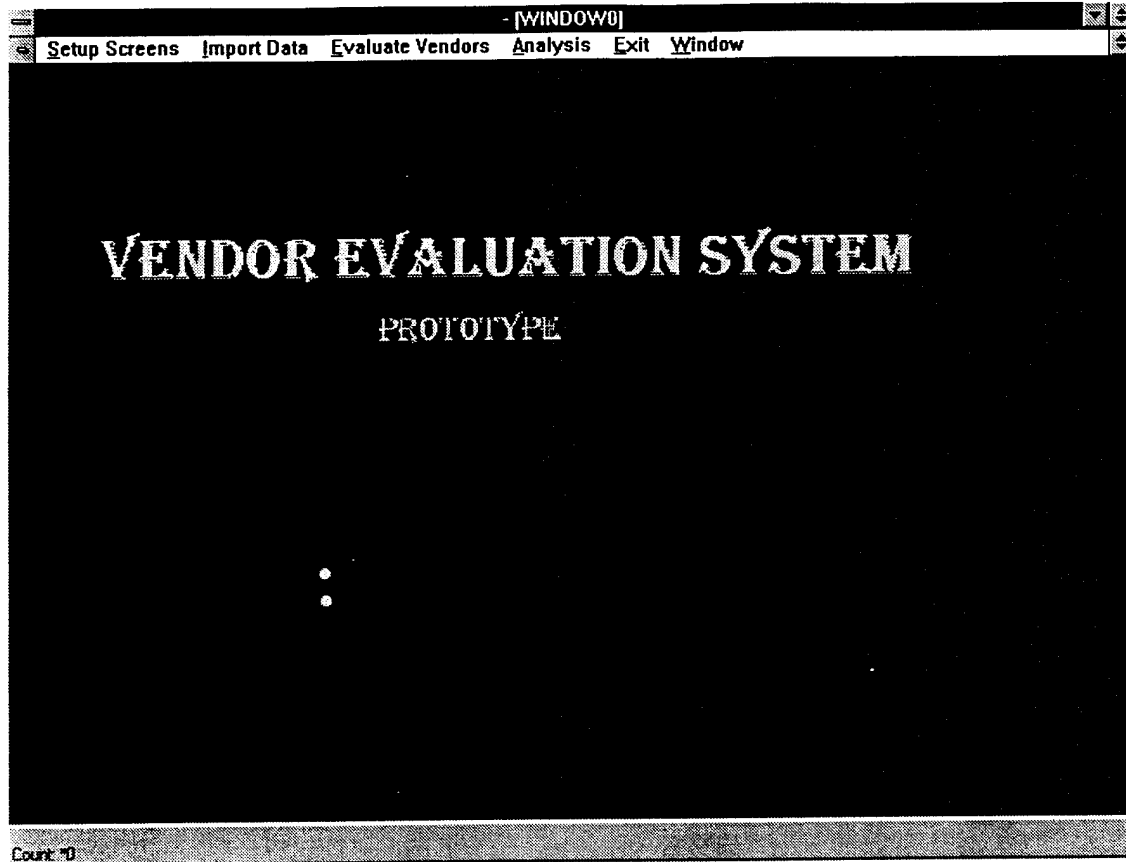
A producer of products in

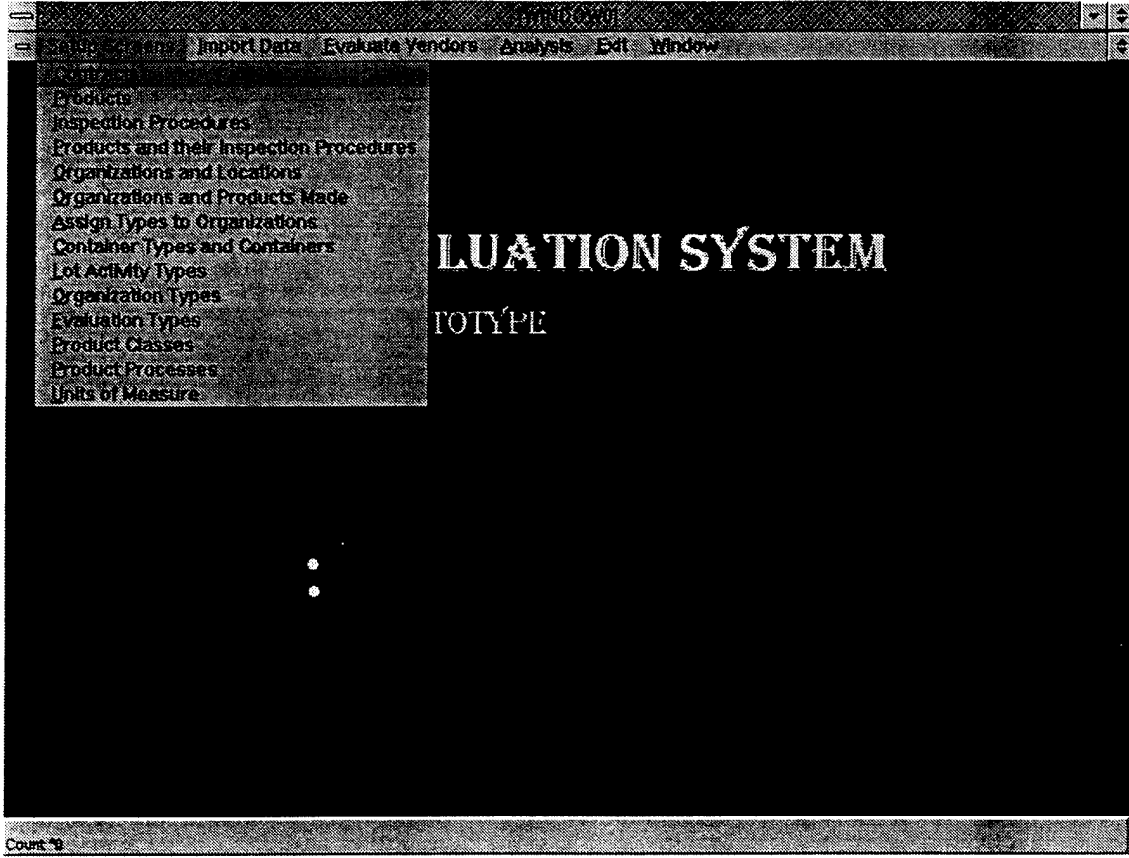
The employer of

May be evaluated

ORGANIZATION
o ORGANIZATION ID
o ORGANIZATION NAME







Setup Screens Import Data Evaluate Vendors Analysis Exit Window

Contract Headers

Contract Number: Granted By:

Granted To: Start Date: End Date:

Contract Products

Line Item	Product Id	Code	Product Description	Contract Year

Contract Delivery Schedules

Del. Item	Quantity Req.	Date Req.	Shipper	Destination

Assign a identifier for the Contract
Count: 0

Setup Screens Import Data Evaluate Vendors Analysis Exit Window

Products

Product Id: 56 Skillet Code:

Product Description: JELLY, GRAPE

Military Specification: MIL-C-44068 National Stock Number: 8930-00-149-1058 Product Class Id: 1

Product Class Description: Combat Rations Process Id: 9

Process Description: SPREAD (NON THERMO)

Container Id: 1 Container Description:

Container Type: POUCH Container Size: 1 Size UOM: OZ

The USDA 3 letter product identifier:
Count: 1

Setup Screens Import Data Evaluate Vendors Analysis Edit Window

Organizations

Organization Id: Organization Name:

Organization Locations

Location Id: Code: Address Line 1:

Address Line 2:

Address Line 3:

City: State: Zip:

Organization Location Types

Organization Type

Enter a query, press F7 for actions, Ctrl-Q to cancel
 Count: 0 ENTER QUERY

Setup Screens Import Data Evaluate Vendors Analysis Edit Window

Container Types

Container Type: Container Type Description:

Containers

Container Id	Container Description	Container Size	Size UOM
1		1	OZ
2		1.5	OZ
3		1.8	OZ
4		2.5	OZ
5		2.8	OZ
6		4	G
7		4.5	OZ
8		5	OZ
9		6	OZ
10		8	OZ
11		12	G
12		13	G

A container type
 Count: 0

Setup Screens Import Data Evaluate Vendors Analysis Edit Window

Product Processes

Process Id	Process Description
1	COMPONENT
2	SPREAD (THERMO)
3	THERMO
4	THERMO1
5	THERMO2
6	THERMO3
7	THERMO4
8	WATER STABLE
9	SPREAD (NON THERMO)

A description of the process:
Count: 9

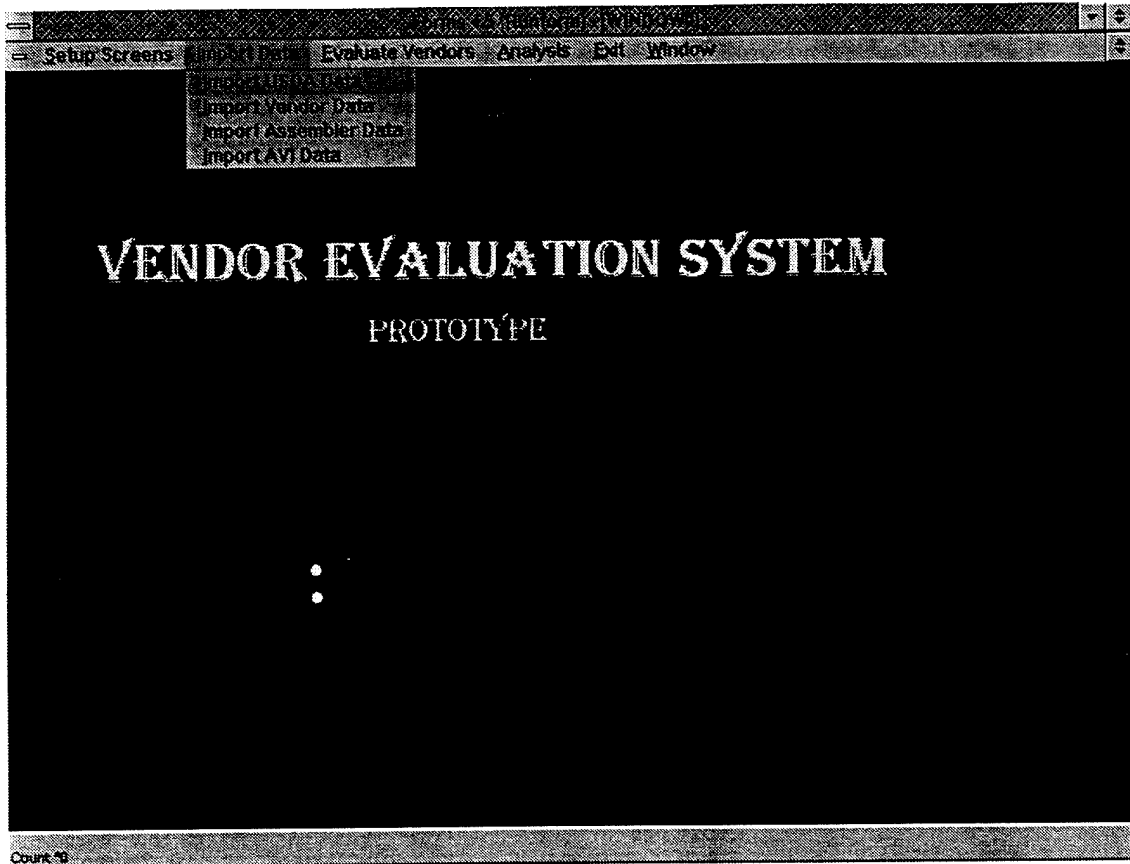
Setup Screens Import Data Evaluate Vendors Analysis Edit Window

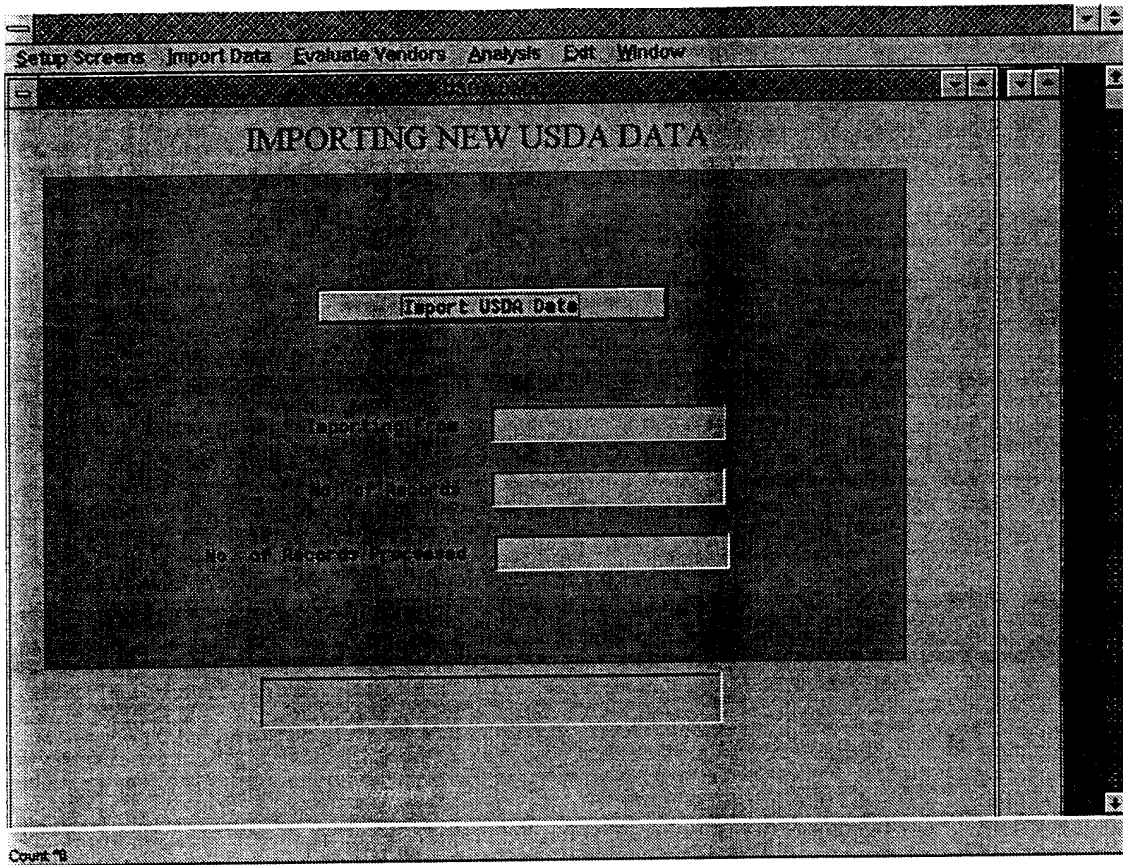
Units Window

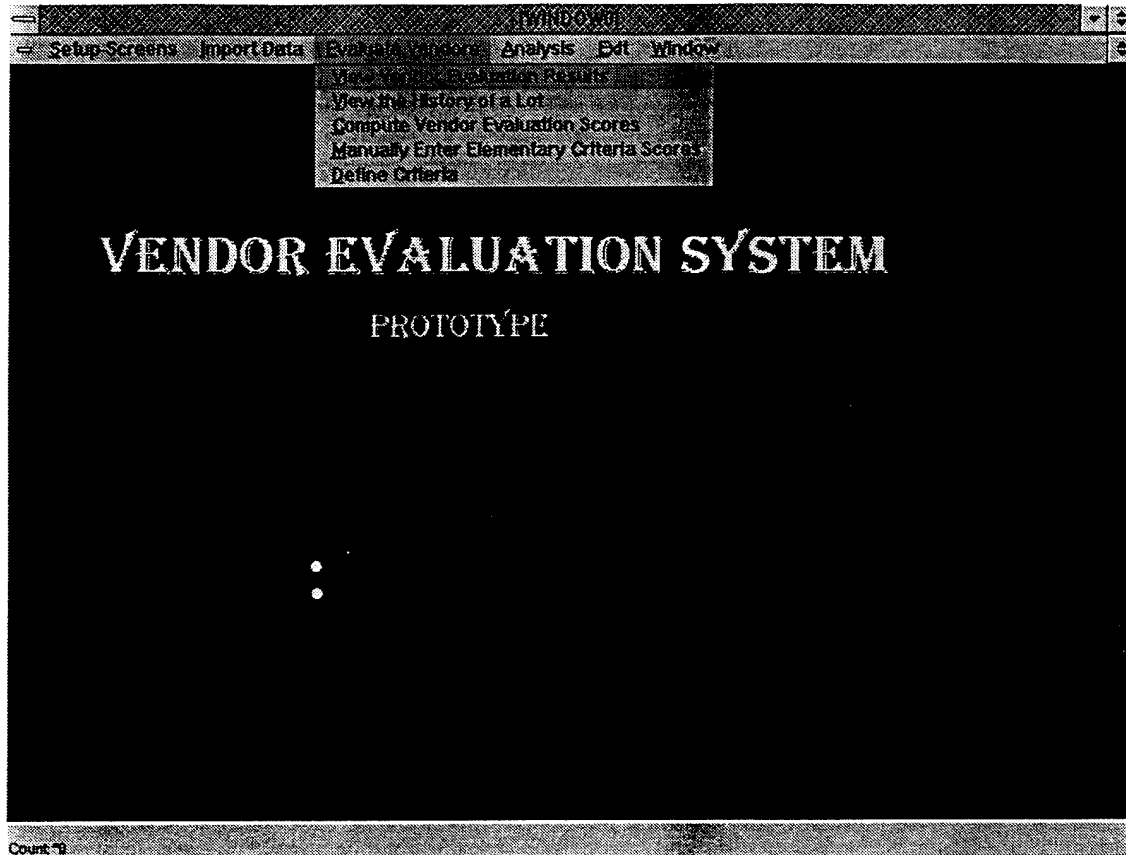
UNITS OF MEASURE

UOM	Uom Description
OZ	Ounces
G	Grams
LB	Pounds
KG	Kilograms
GAL	Gallons
L	Liter

The Abbreviated Unit Of Measure
Count: 6





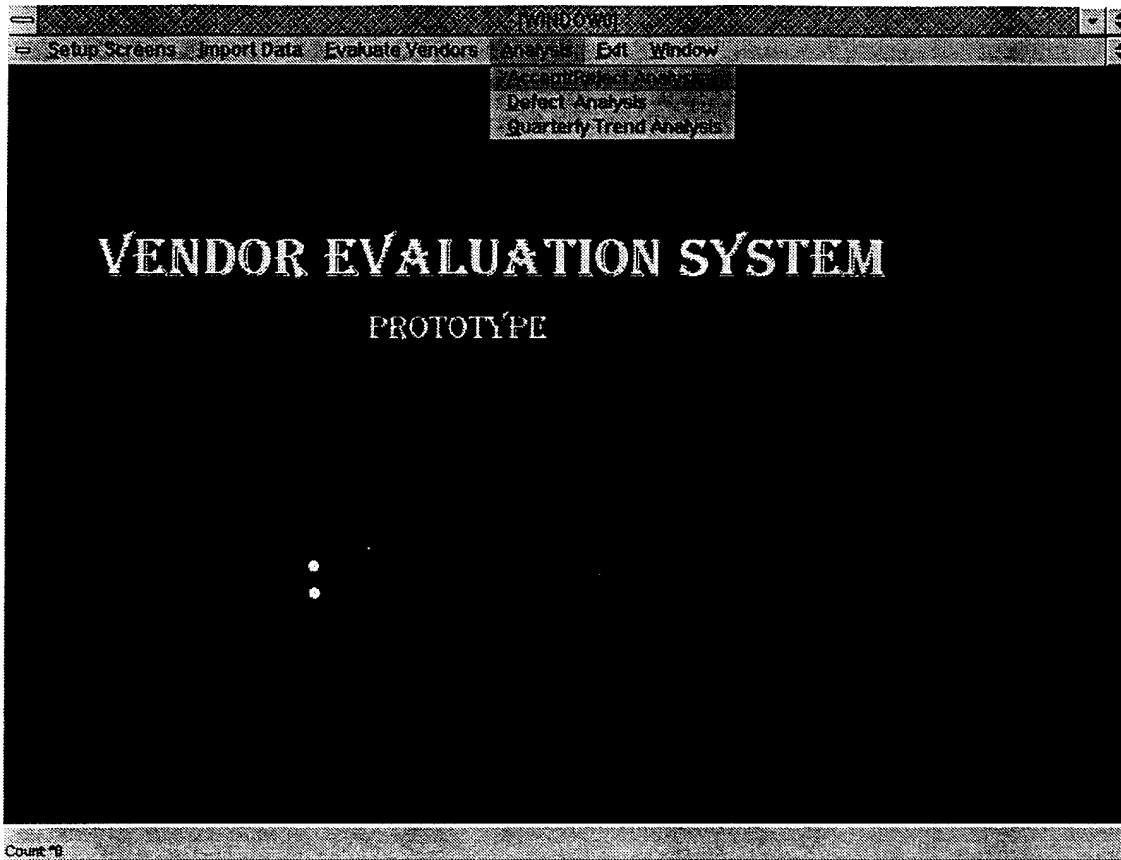




Criteria							
Criteria Id	Criteria Description	Master Criteria		Product Class			
5	Overall VES Score	<input type="checkbox"/> N	<input checked="" type="checkbox"/> Y	Combat Rations			

Sub Criteria							
Criteria Description	Product Class Description			Elementary Criteria	Relative Importance		
Quality	Combat Rations			<input checked="" type="checkbox"/> N <input type="checkbox"/> Y	8		
Weight	High Limit	Low Limit	Target	Target UOM	Date Last Changed	Reason	
25					16-MAY-1996		
Criteria Description	Product Class Description			Elementary Criteria	Relative Importance		
Price	Combat Rations			<input type="checkbox"/> N <input checked="" type="checkbox"/> Y	8		
Weight	High Limit	Low Limit	Target	Target UOM	Date Last Changed	Reason	
25					16-MAY-1996		
Criteria Description	Product Class Description			Elementary Criteria	Relative Importance		
Delivery	Combat Rations			<input type="checkbox"/> N <input checked="" type="checkbox"/> Y	4		
Weight	High Limit	Low Limit	Target	Target UOM	Date Last Changed	Reason	
.125					16-MAY-1996		

The description of the criteria
Count: 1



Setup Screens Import Data Evaluate Vendors Analysis Edit Window

DEFECTIVE LOT ANALYSIS

Accept Reject

LIST CHART PRINT REPORT

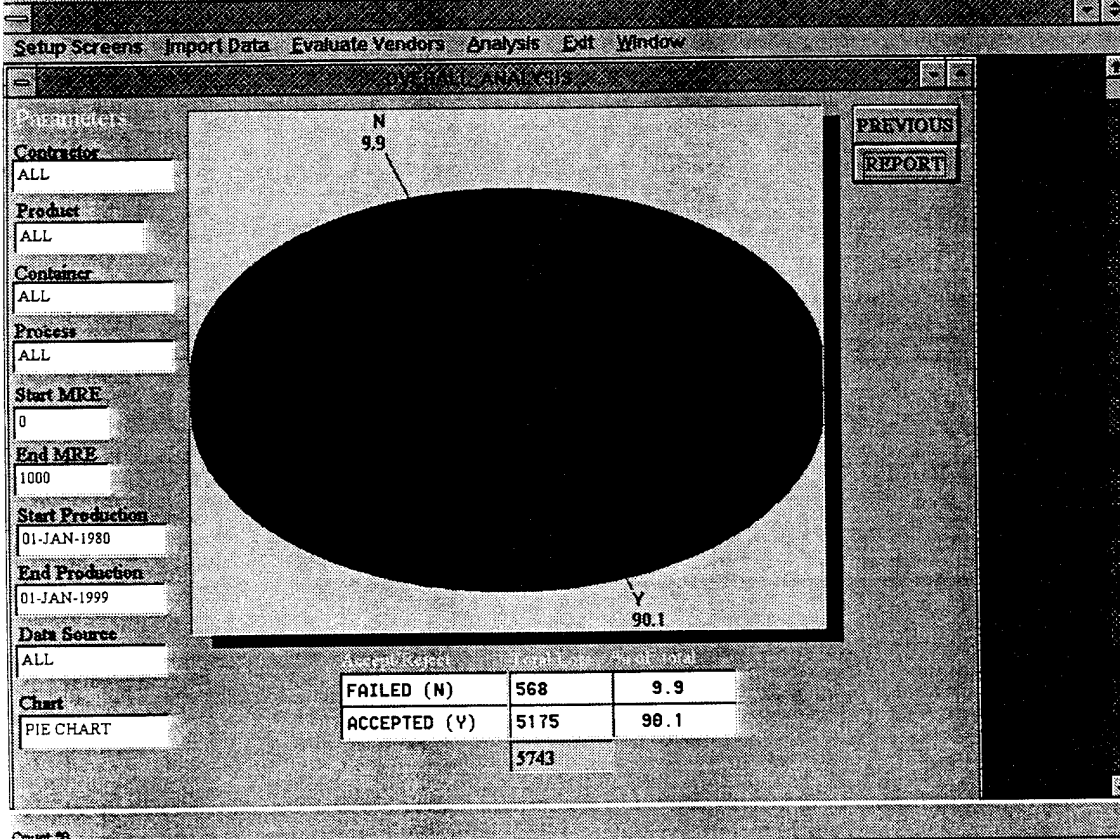
Contractor: %
Product: %
Description: %

Container Type: %
Process: %

Start MRE: 0 End MRE: 1000
Start Date Produced: 01-JAN-1980 End Date Produced: 01-JAN-1999

Data Source: %
Chart: PIE CHART

Contractor's name code: You can use the "LIST" button
Count: 0

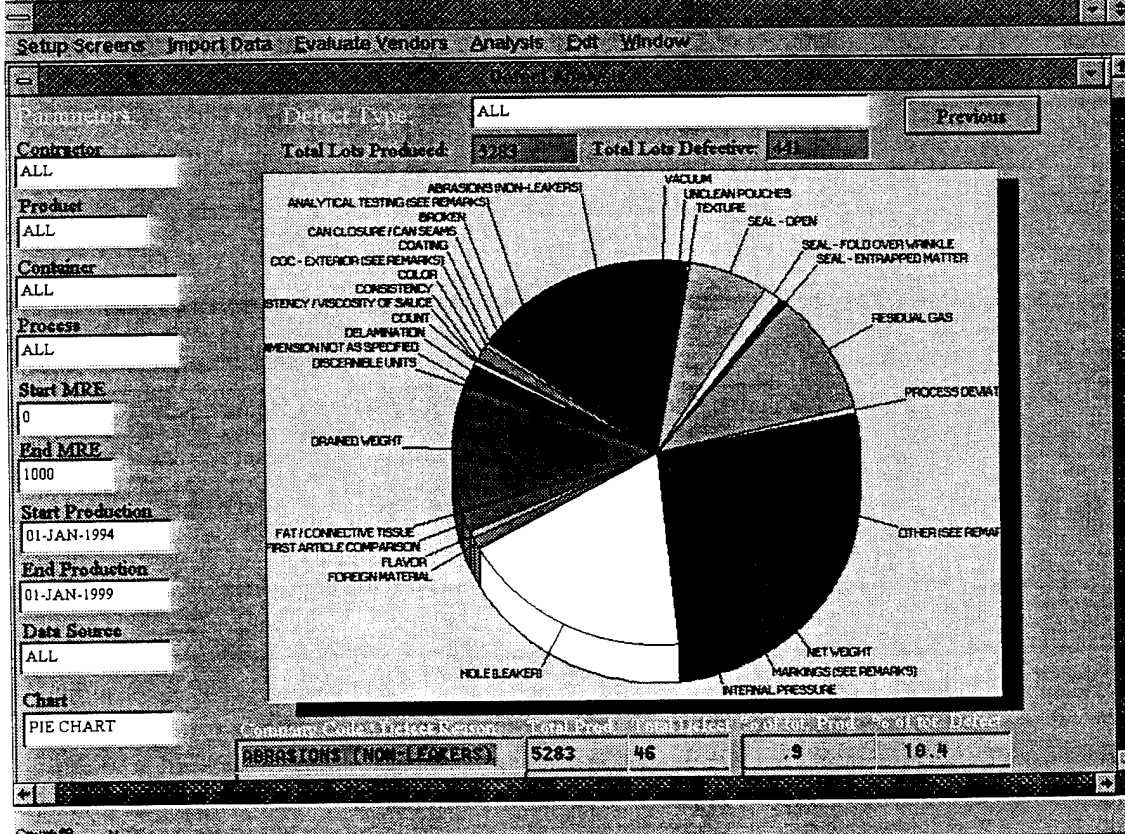


Setup Screens Import Data Evaluate Vendors Analysis Edit Window

DEFECT ANALYSIS

Contractor		Product		Description	
%		%			
Defect Type		Container Type		Process	
%		%		%	
Start MRE	End MRE	Start Date Produced	End Date Produced		
0	1000	01-JAN-1994	01-JAN-1999		
Data Source		Chart			
%		PIE CHART			

The starting produced date Format
Count '9



Setup Screens Import Data Evaluate Vendors Analysis Edit Window

TRENDS ANALYSIS

Contractor %		Product %		Description 	
Defect Type %		Container Type %		Process %	
Start MRE 0	End MRE 1000	Start Date Produced 01-JAN-1994	End Date Produced 01-JAN-1999		
Data Source %		Chart Type BAR CHART			

