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QPR Online Processing System Detailed System Design

AMIR II Achievement of Market-Friendly Initiatives and Results

June 2004

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JORDAN AMIR II

Achievement of Market-Friendly Initiatives and Results

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Certificate of Origin Processing

**QPR Online Processing System
Detailed System Design**

Final Report
June 30, 2004

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Abstract

This report is prepared to automate the processing of Qualifying Product Requests (QPR), Certificates of Origins (CO) and the database system at the Industrial Development Department (IDD) to help create an efficient enabling environment for investors and traders in Jordan.

Abbreviations and Acronyms

| | |
|-----|------------------------------------|
| ACI | Amman Chamber of Industry |
| CO | Certificate of Origin |
| IDD | Industrial Development Directorate |
| QIZ | Qualifying Industrial Zone |
| QPR | Qualified Product Request |

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Executive Summary

Late in 2003, the Community Development Group (CDG) scoped the business requirements to automate the processing of the qualifying product request (QPR) and the certificates of origin (CO) at the Industrial Development Directorate (IDD) of the Ministry of Industry and Trade (MIT). This report contains the results of follow-on work to that scoping exercise, which has as its objective to show how to develop, deploy and test each of the following modules:

- 1) Module One: A web-enabled QPR Processing Module.
- 2) Module Two: A web-enabled CO Processing Module.
- 3) Module Three: A database at the IDD.

The design and implementation of the new system shall be conditional upon IDD supplying necessary servers and personal computers. However, it is uncertain when any specifications of such a system will be agreed upon. The impact of the system will be streamlined administrative procedures, reduced costs of doing business for the private sector, and new statistics for improved policy-making.

I. SYSTEM OVERVIEW

The Qualifying Industrial Zone (QIZ) Unit of the IDD is responsible for processing qualifying product request (QPR) certificates and issuing certificates of origin (CO). The system will automate these processes.

Qualified Product Request (QPR)

Through an Internet connection, the manufacturer will log onto the system using a given username and password. Once authenticated, the user may fill a new QPR form or recall a partially entered one by selecting it from a list. The status of the newly created QPR will be "pending".

Once all of the needed information is entered and all required documentation has been up-loaded, the system will verify the agreed upon ratios. If the ratios are accepted, the manufacturer will be allowed to submit the QPR to IDD. The QPR status will then be flagged as "Submitted" and the manufacturer will not be allowed to edit any of the information on the QPR.

Once the QPR has been submitted, an e-mail will be automatically forwarded to the manufacturer's IDD officer so that the approval process can start.

The officer will then study the QPR and decide whether the QPR is complete or not. If the officer decides that the QPR is complete, the QPR will be forwarded to Israel to obtain their approval and the manufacturer will be automatically notified by e-mail of the fact. During this process the QPR will be flagged as "Awaiting Israeli Approval". Once the approval arrives from Israel, the QPR status will be updated to "Approved" and the QPR approval number will be automatically generated. Also, the manufacturer will be notified by e-mail of the approval status. Once the QPR has been approved, none of its information can be updated.

If for any reason the QPR was rejected, the manufacturer will be automatically notified by e-mail and the QPR status will be updated to "Rejected".

During the approval process, the IDD officer may require more documents or may ask the manufacturer to edit some of the QPR information. To do so, the officer has to reset the status of the QPR to "pending". The manufacturer will then be notified by e-mail and asked to do the necessary editing.

Certificate of Origin (CO)

Once the manufacturer is ready to export the produced goods, the manufacturer needs to get a certificate of origin from Amman Chamber of Industry (ACI) first. After checking all necessary documents, ACI gets IDD approval for the issuance of the certificate of origin. If IDD approves, the certificate of origin is issued and its information is automatically sent to IDD's database. The status of the C/O will be "pending".

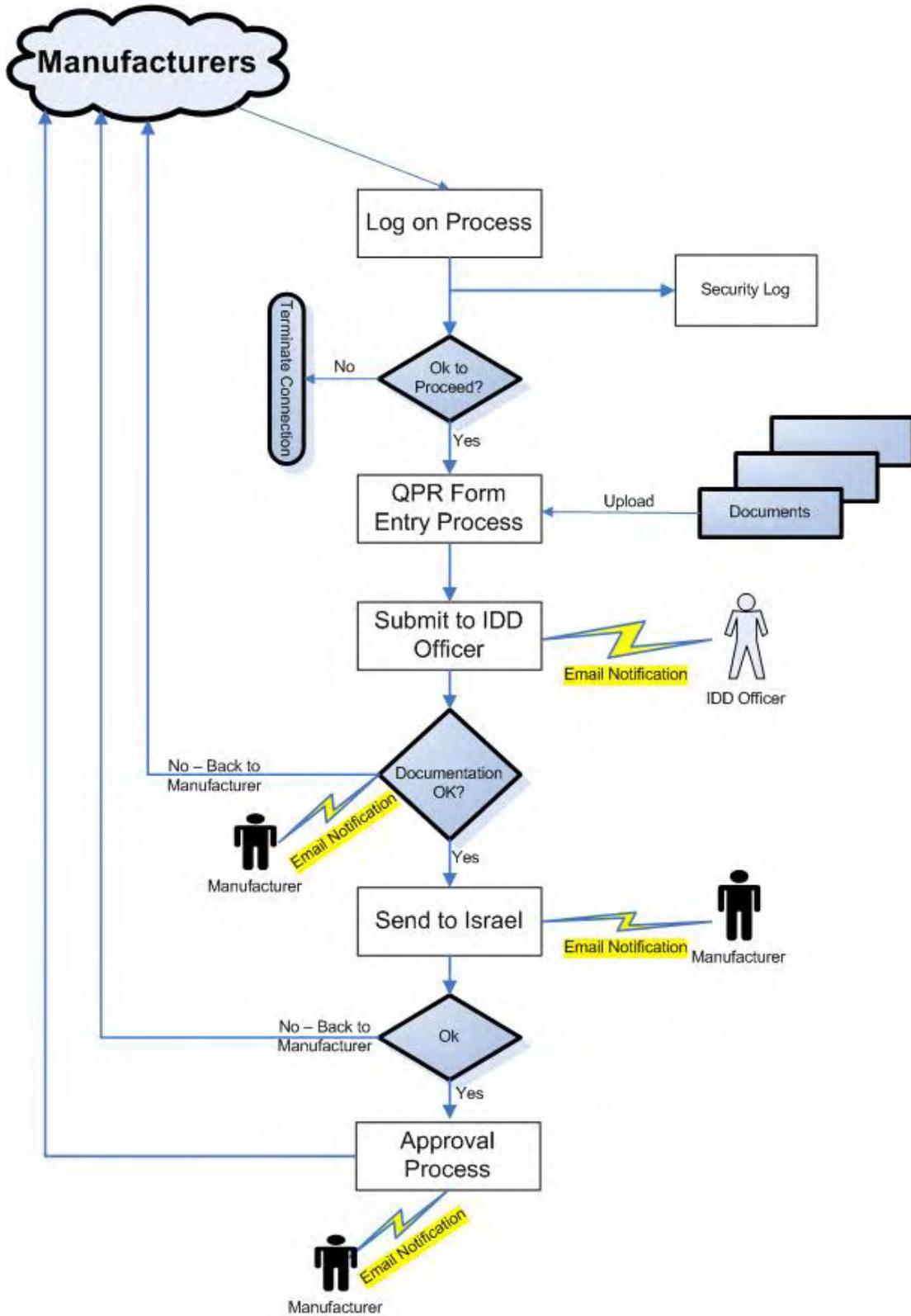
IDD officers checks for pending certificate of origins and update there information, adding manufacturers' Ids to it.

Once the officer has fully updated the C/O information, its status is updated to "Approved" and an e-mail is automatically sent to the manufacturer informing him/her that the C/O is ready and that he/she can pick it up after paying necessary dues.

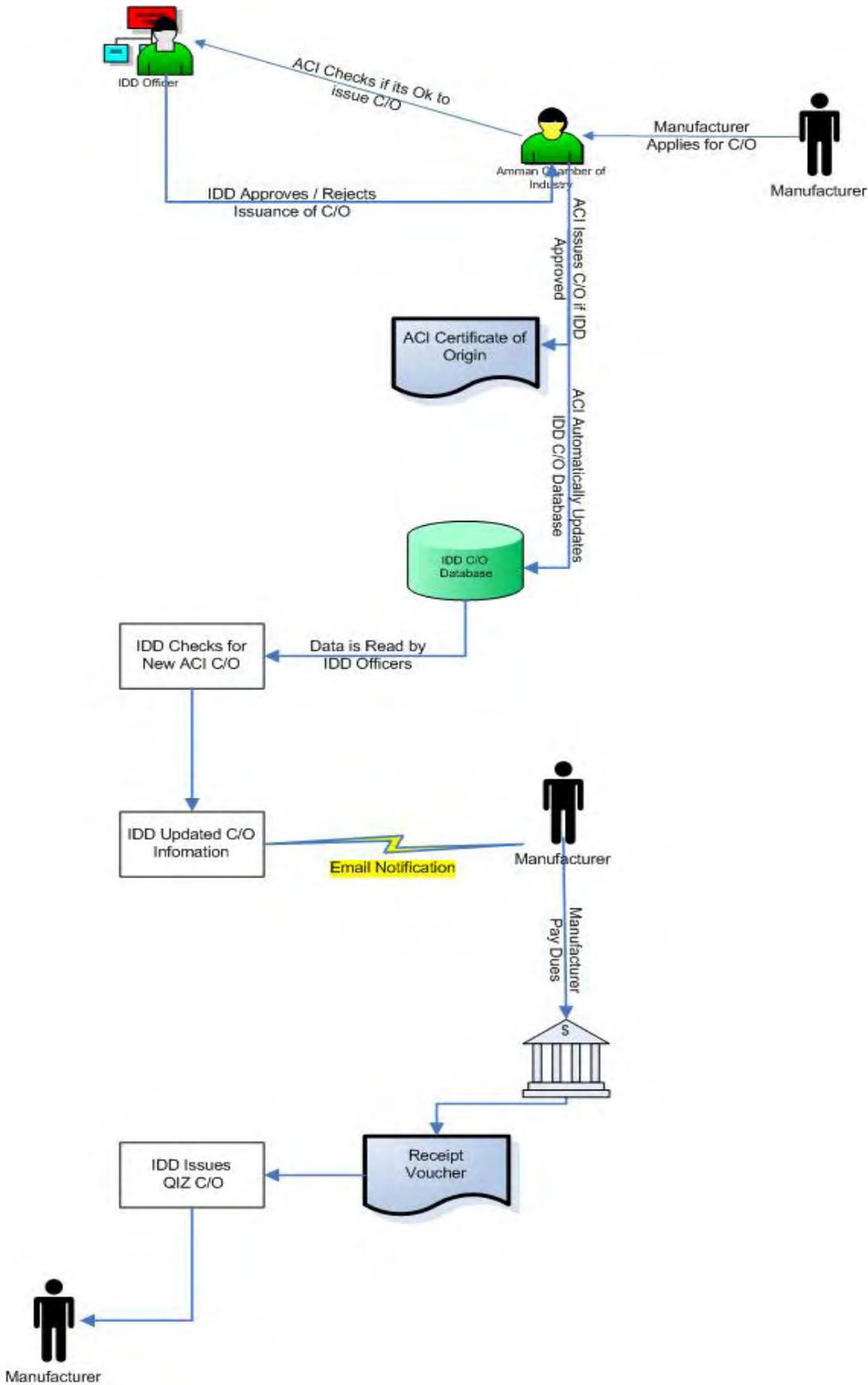
The certificate of origin is then produced once the manufacturer shows evidence that he/she paid his/her dues. The status of the C/O is then set to "Issued".

II. SYSTEM PROCESS FLOW DIAGRAM

A. Qualified Product Request Process Flow



B. Certificate of Origin Process Flow



III. SYSTEM MAIN FUNCTIONS

A. Security Profile

To ensure a reliable and robust web portal and to protect the data, a strong security module must be put in place. Each user that attempts to log onto the system will have to be authenticated first. The system will have two kinds of users, namely IDD officers and QIZ manufacturers.

Each user will have different authorities and responsibilities but in general, QIZ manufacturers will never be allowed to access any of the information that belongs to other QIZ manufacturers unless it was classified as public information.

Each manufacturer will be assigned one username and password to access the system. Also each manufacturer's e-mail address must be supplied so that all e-mails that are generated through the system can be tracked. Also, each IDD officer will be assigned a single username and password to access the system. The officers' e-mails are also supplied.

Once a new username is created, a random password will be automatically generated. Using the system internal e-mail facility, an e-mail will be automatically sent to the user to notify him/her of the username and password needed to access the system.

Upon first log in, the user will be asked to change his/her password. Failure to do so will prevent the user from accessing any of the system modules.

If the users attempts to log onto the system failed for three times, the user will be prompted to answer three questions. If all three questions were properly answered, an e-mail will be automatically sent to the manufacturer's e-mail to notify him of the username and password. If however, any of the three questions was incorrect, the username will be blocked and no further access will be allowed until the username and password has been set by the system administrator.

If for any reason the username and password were reset, the user will have to change his/her password upon first login.

After each login attempt, whether it succeeded to failed, the system will log the information.

B. Qualified Product Request (QPR)

The QPR form should have all the relevant information and the supporting documents needed to approve the request. Following is the list of the information requested by the QPR form and a brief description of each:

Manufacturer: (Mandatory field)

The Manufacturer is the QIZ Jordanian Manufacturer requesting the approval.

The field will be automatically filled with the company id that is logged on. If the user that is logged on is from the IDD staff, he/she must enter the company id in order to proceed.

A link will be available to review the manufacturer's profile and its products. The following fields may be edited by the manufactures (the rest can only be edited by IDD):

1. Authorized Signatory
2. Address
 - a) Location
 - b) Telephone numbers
 - c) Fax
 - d) P.O. Box
 - e) City
 - f) E-mail
 - g) Website
3. Company Products Description: Un-limited number of products.

Qualified Products:

Each QPR may have one or more products attached to it. For each product, the following information must be supplied:

1. **Product Description:** The description must be one of the pre-defined product descriptions. IDD is responsible for adding any new product descriptions¹.
2. **HS Code:** The HS Code of the product
3. **Production Monthly Capacity:** In pieces per month. This value can be overridden by IDD officers.
4. **FOB price per piece (USD)**

At least one product must be defined.

Employees:

This section defines the Direct Labor (DL) employees and the Indirect Labor (IL) employees. For each type, the following information is needed:

1. **Job Title:** The job title must be one of the pre-defined titles IDD is responsible for adding any new description².

¹ Refer to System Supporting Functions

2. Number of local male employees.
3. Number of local female employees.
4. Number of foreign male employees.
5. Number of foreign female employees.
6. The total salary of local male employees.
7. The total salary of local female employees
8. The total salary of foreign male employees.
9. The total salary of foreign female employees.

Manufacturing Material Inputs:

There are three types of inputs: Major inputs, Israeli input, and input from other places.

Each type of material inputs requires the following information.

1. **Material:** The material must be from a list of pre-defined materials. IDD is responsible for adding any new description³.
2. **Type:** Can be Raw, Intermediate, or Other. The “Other” types can be Accessories, Auxiliaries, or Ancillaries.
3. **Source:** Must be selected from a pre-defined list of sources:
 - a) USA
 - b) Jordan
 - c) QIZ
 - d) West Bank
 - e) Gaza Strip
 - f) Others
4. **Unit:** The units of measurement. Must be selected from a pre-defined list of measurement units. IDD is responsible for adding any new description⁴.
5. **FOB Unit Price:** The FOB price of the unit in USD.
6. **Consumption per piece without waste.**
7. **Consumption per piece with waste.**
8. **Cost per piece (USD):** The FOB Unit Price * Consumption per piece with waste. This is a calculated field.

At least one major and one Israeli input are required.

Processing Cost:

The Direct and Indirect processing costs must be entered. Following are the needed information for each type:

1. **Expense: Must be selected from a list of pre-defined expenses.** IDD is responsible for adding any new description⁵.
2. **Value:** The value of the expense.

²Ibid.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

Percentages Calculations:

Once the input and processing costs values are entered, the detailed total cost of the each piece in USD will be automatically calculated to show the following:

1. Material Cost from each source of input (USA, Jordan, QIZ, West Bank, Gaza Strip, and Others)
2. The direct labor cost
3. The indirect labor cost
4. The direct processing cost
5. The indirect processing cost

After entering all of the needed information, the ratios needed to approve the QPR is calculated and checked against the approved rations as follows:

➤ **Method 1**

1. Input from Jordan Ratio:

$$\frac{\text{Material from Jordan} + \text{Direct Labor Cost} + \text{Direct Processing Cost}}{\text{FOB Price (USD/Piece)}}$$

The ratio must be at least 11.7% for the QPR to be approved.

2. Input from Israel Ratio:

$$\frac{\text{Material from Israel}}{\text{FOB Price (USD/Piece)}}$$

The ratio must be at least 8% for the QPR to be approved.

3. Input from all Sources Ratio:

$$\frac{\text{Material from all Source} + \text{Direct Labor Cost} + \text{Direct Processing Cost}}{\text{FOB Price (USD/Piece)}}$$

The ratio must be at least 35% for the QPR to be approved.

➤ **Method 2**

2. Calculate total Cost: Direct Labor Cost + Indirect Labor Cost + Direct Processing Cost + Indirect Processing Cost
3. Calculate Total Production Cost: Total Material Cost + Total Labor Cost (direct and indirect) + Processing Cost (direct and indirect).
4. Ratio = $\frac{\text{Total Cost} / \text{Total Capacity}}{\text{Total Production Cost}}$

If the ration is greater than or equal to 20% then the QPR can be approved.

Supporting Documents:

To approve the QPR, the manufacturer must provide the following supporting documents (these documents should be scanned and uploaded with the QPR submitted form):

1. Purchase Orders
2. List of Material Consumptions.
3. Production Reports / Capacity Reports.
4. Invoices for other inputs from QIZ Jordan (if any)
5. Israeli input invoices
6. Invoices from other main inputs
7. Payroll sheet, social security payment reports (*)
8. Factory and Housing Rent Contracts (*)
9. List of Machines (*)
10. List of Direct and Indirect Processing Cost
11. Electricity, water, fuel consumption and transportation invoices.

If all of the required information has been entered, the ratios are within the approved percentages, and all of the supporting documents are attached, the user can send the QPR to IDD. The QPR will be flagged as “Submitted” and the IDD officer will be sent a notification e-mail.

IDD Officer Review Operation

IDD may review a list of all pending QPRs and select the QPR to review.

Officer may override the designated production capacity and re-calculate the input percentages.

Officer can retrieve previous submitted supporting documents up-loaded with previous QPRs per type.

The officer has the capacity to review all correspondences and e-mail notifications tracked for this QPR as well as previous approved similar HS Code QIZ product from the same manufacturer’s QPRs or other manufacturers’ QPRs.

After reviewing the QPR and its documents, IDD officer may approve the QPR and set its flag to “Approved” after which it will get an approval number (approval number are serialized according to company id) and the manufacturer will be sent a notification e-mail. If the QPR was not approved, it will be flagged as such and e-mail will be sent to the manufacture stating the reason. The manufacture then has to amend the QPR and send it back to IDD.

NOTE: Once the QPR has been submitted, none of its information can be edited.

Through out the process, the QPR can be printed out for archive purposes.

C. Certificate of Origin (CO)

The C/O has the following information:

Company: The QIZ manufacturer requesting the certificate of origin.

Consignee: The American purchaser / client.

Shipping Mode: Must be either Sea or Air.

Port of Departure: Must be selected from a list of valid ports.

ACI C/O Number:

IDD C/O Number:

Has the following format: ccc/aaa/x99/yy where ccc is the company number, aaa is the QPR approval number, x99 is the serial of the c/o of the company, yy is the year.

The c/o number is unique and is automatically generated. However, authorized personnel are allowed to enter the code manually.

ACI C/O Date

IDD C/O Date: C/O date of issue.

Marking:

Packages markings. There will be only one marking for all products.

Origin Criteria: There will be one origin criteria for all products.

Products

Each certificate of origin is issued for one or more products. For each product, the following information must be provided:

HS Code: One of pre-defined HS Codes. The field is mandatory.

Product Description: One of predefined products.

Sub - Product Description: One of predefined sub-products.

FOB Price (USD): The field is mandatory

Gross Weight (Kg)

Net Weight (Kg)

Quantity: The field is mandatory

Invoice Number: The field is mandatory

Invoice Date: The field is mandatory

Notes:

- Each QPR have one or more Certificate of Origin.
- Each certificate of origin has at least one invoice attached to it and it may have several invoices.
- The certificate of origin may be for a part of an invoice.

IV. SYSTEM SUPPORTING FUNCTIONS

A. QIZ Manufacturers

The module tracks the general profile of all QIZ manufacturers. Following is a list of the information it has:

1. **Manufacturer Number:** Automatically generated
2. **Name in English:** Mandatory
3. **Name in Arabic:** Mandatory
4. **Officer in charge of the account:** Mandatory
5. **Company Registration Number & Date:** Mandatory
6. **Industrial Registration Number & Date:** Mandatory
7. **Registered Capital (JD & USD):** Mandatory
8. **Volume of Investment (JD & USD):** Mandatory
9. **Authorized Signatory:** Mandatory
10. **Address:** 2 lines and can be updated by the manufacturer.
11. **City:** Can be updated by the manufacturer.
12. **P.O. Box:** Can be updated by the manufacturer.
13. **Postal Code:** Can be updated by the manufacturer.
14. **Telephone:** 3 numbers and can be updated by the manufacturer.
15. **Fax:** Can be updated by the manufacturer him self.
16. **E-Mail:** This is the main QPR contact e-mail, its mandatory and can be updated by the manufacturer.
17. **Website:** Can be updated by the manufacturer.
18. **Products:** The list of all products that the manufacturer has. The list can be updated by the manufacturer.

B. American Clients

The module tracks the general profile of all Israeli suppliers. Following is a list of the information it has:

1. **Client Number: Automatically generated**
2. **Name in English: Mandatory**
3. **Name in Arabic: Mandatory**
4. **Address (2 lines)**
5. **City**
6. **State**
7. **P.O. Box**
8. **Zip Code**
9. **Telephone: 3 numbers**
10. **Fax**
11. **E-Mail**
12. **Website**

C. Officers Definition

The module defines the list of officers that are in charge of the manufacturers accounts.

Following is a list of the information it has:

1. **Number:** Automatically generated.
2. **Name:** Mandatory

3. **E-Mail:** Mandatory
4. **Status:** Defines whether the officer is still in charge of certain accounts or not.

D. HS Codes Definitions

Defines the 7-digit HS codes used and the description of each.

E. Products Definition

Define the products that are being manufactured.

Following is a list of the information it has:

1. **Product Number:** Automatically generated and unique
2. **HS Code:** The 7-digit HS code that refers to this product
3. **Description:** The description of the product.

F. Sub Products Definition

Define the sub-products that are being manufactured.

Following is a list of the information it has:

1. **Sub-Product Number:** Automatically generated and unique
2. **Product Number:** The product number the sub-product belongs to
3. **HS Code:** The 7-digit HS code that refers to this product
4. **Description:** The description of the sub-product.

G. User Definition

The module defines the users how are allowed to have access to the system. The users can be either manufacturers or IDD officers. Each user must have unique user name and password to access the system. The users logins activity are tracked for future reporting.

H. Coding System

The module define the lists that are rarely updated.

- a. Ports
- b. Direct Processing Expenses
- c. Input Material
- d. Input Material Source
- e. Job Title
- f. Units

V. QPR REPORTS

A. QPR by Manufacturer

Shows the number of QPR submitted by each manufacturer within a certain period:

The report will show the following columns:

- i. Manufacturer
- ii. Number of all QPR
- iii. Number of pending QPR
- iv. Number of submitted QPR
- v. Number of approved QPR
- vi. Number of rejected QPR
- vii. Number of QPR awaiting Israel's Approved

B. Labor by Manufacturer

Based on the last submitted QPR (regardless of its status), the report will display the number of laborers per manufacturer, whether they are direct or indirect laborers .

The report will show the following columns:

- i. Manufacturer
- ii. Number of local males.
- iii. Number of local females
- iv. Number of foreign males
- v. Number of foreign females
- vi. Total number of males
- vii. Total number of females
- viii. Total number
- ix. Total salary of local males.
- x. Total salary of local females
- xi. Total salary of foreign males
- xii. Total salary of foreign females
- xiii. Total salary of males
- xiv. Total salary of females
- xv. Total salary

C. Inputs by Manufacturer

The report shows the input products that have been imported within a certain period of time by a certain manufacturer or all manufacturers.

The report will show the following columns:

- i. Input
- ii. Total value imports with waste.

VI. CERTIFICATE OF ORIGIN REPORTS

A. **Manufacturers' Exports**

Shows the exports value of all companies within a certain period.

Notes:

- a. The list can be filtered to show exports that have c/o within a certain value range.
- b. The value of the exports is retrieved from the invoices using the c/o date and invoice value.
- c. The report will show the following columns:
 - i. Company Name
 - ii. Value of Exports

B. **Manufacturers Export' by FOB Price**

Notes:

- a. The list can be filtered to show exports for one company or all companies.
- b. The report will show the following columns:

C. **Export by HS Code**

Shows the exports values within a certain period grouped by HS Code.

Notes:

- a. The list can be filtered to show exports within a certain value range.
- b. The list can be filtered to show exports for one company or all companies. The value of the exports is retrieved from the invoices using the c/o date and invoice value.
- c. The report will show the following columns:
 - i. HS Code
 - ii. Value of Exports

D. **Exports by Buyer**

Shows the exports values within a certain period grouped by the American Buyer.

Notes:

- a. The list can be filtered to show exports within a certain value range.
- b. The list can be filtered to show exports made by one company or all companies. The value of the exports is retrieved from the invoices using the c/o date and invoice value.
- c. The report will show the following columns:
 - i. American Buyer
 - ii. Value of Exports

E. **Exports by Shipping Mode**

Shows the exports values within a certain period grouped by the Shipping Mode (Air / Sea).

Notes:

- a. The list can be filtered to show exports within a certain value range.

- b. The list can be filtered to show exports made by one company or all companies. The value of the exports is retrieved from the invoices using the c/o date and invoice value.
- c. The report will show the following columns:
 - i. Mode of Shipping
 - ii. Value of Exports

F. Exports by Port

Shows the daily, monthly, quarterly, and yearly exports values grouped by the Port.

Notes:

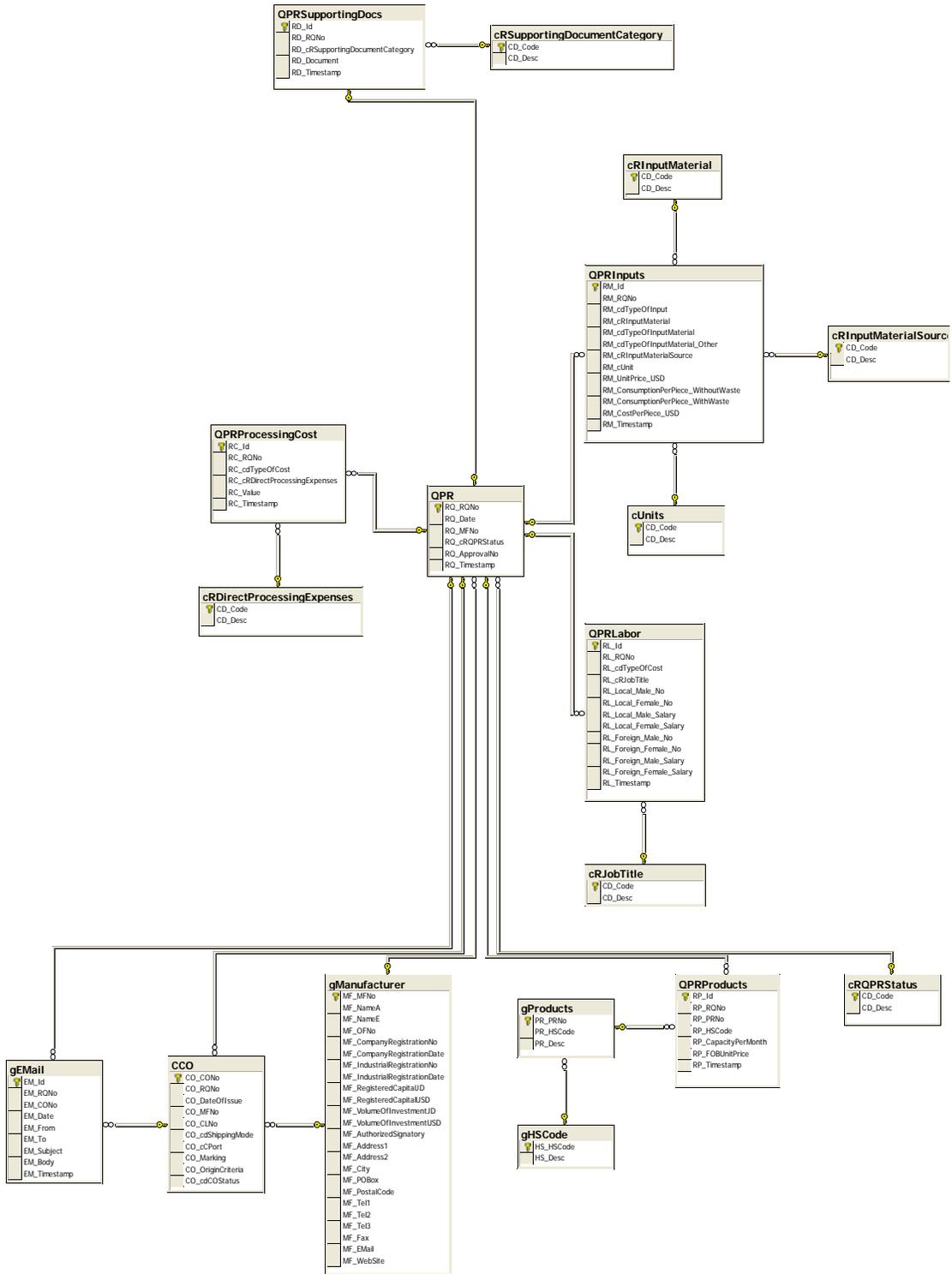
- a. The list can be filtered to show exports within a certain value range.
- b. The list can be filtered to show exports made by one manufacturer or all manufacturers. The value of the exports is retrieved from the invoices using the c/o date and invoice value.
- c. The report will show the following columns:
 - i. Port
 - ii. Value of Exports

VII. DATABASE STRUCTURE

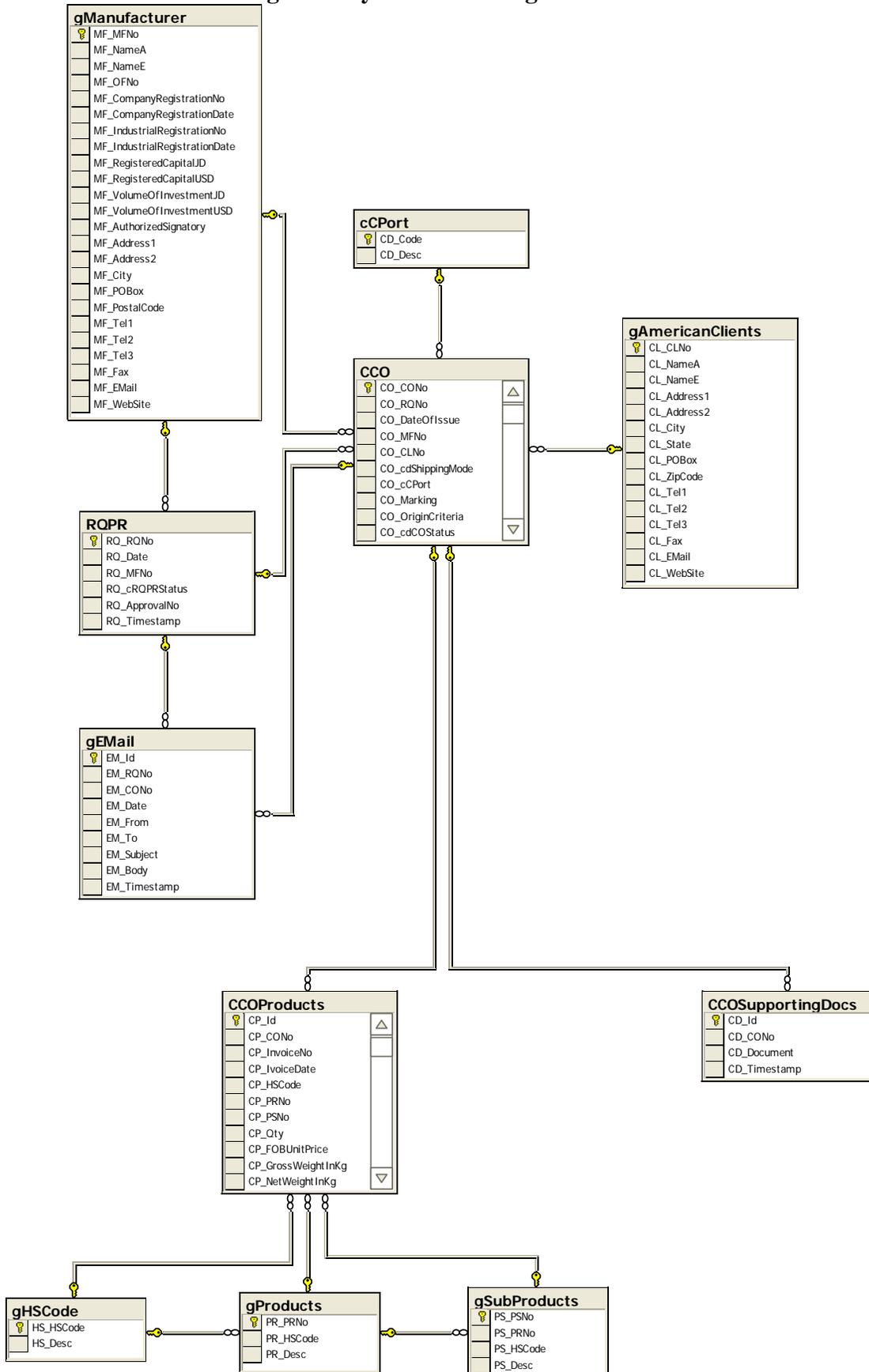
- A. Entity Relation Diagram**
Please Refer to ANNEX A
- B. Database Dictionary**
Please Refer to ANNEX B

ANNEX A: Entity Relations Diagram

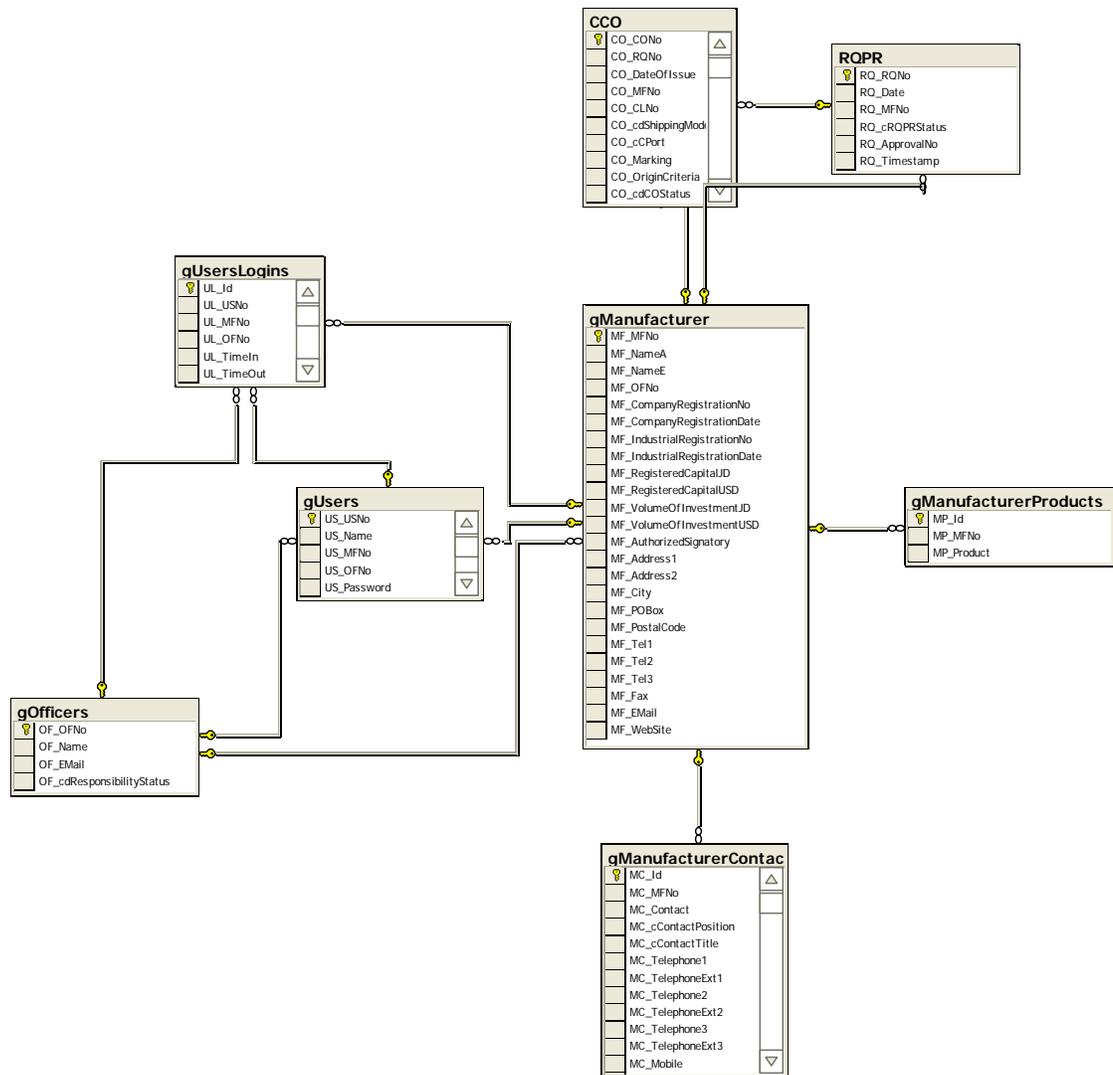
A. Qualified Product Request Entity Relations Diagram



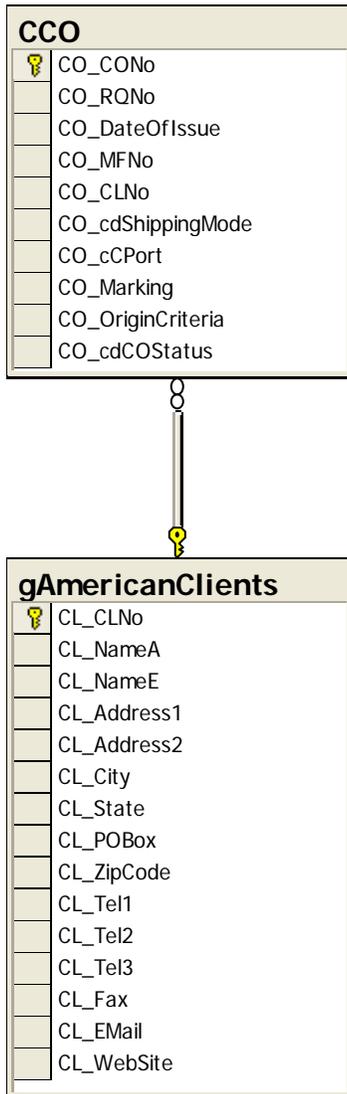
B. Certificate of Origin Entity Relations Diagram



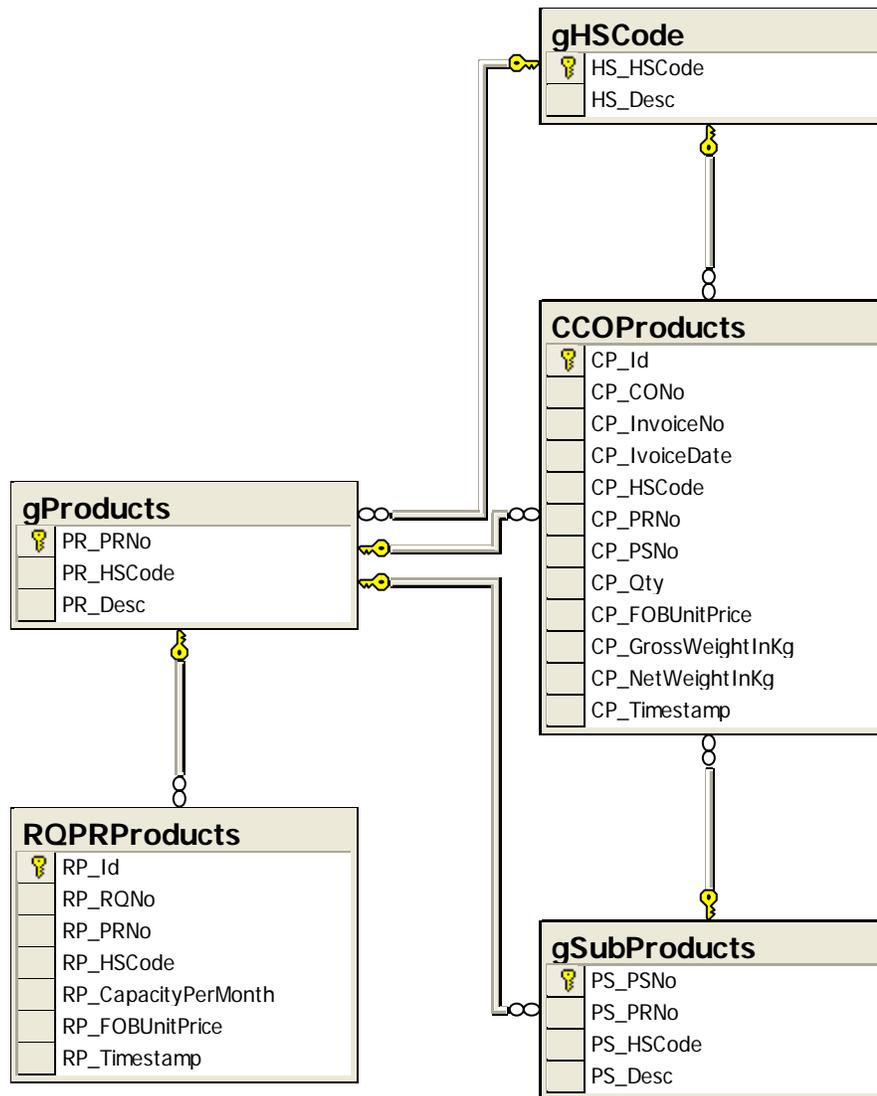
C. Manufacturers Entity Relations Diagram



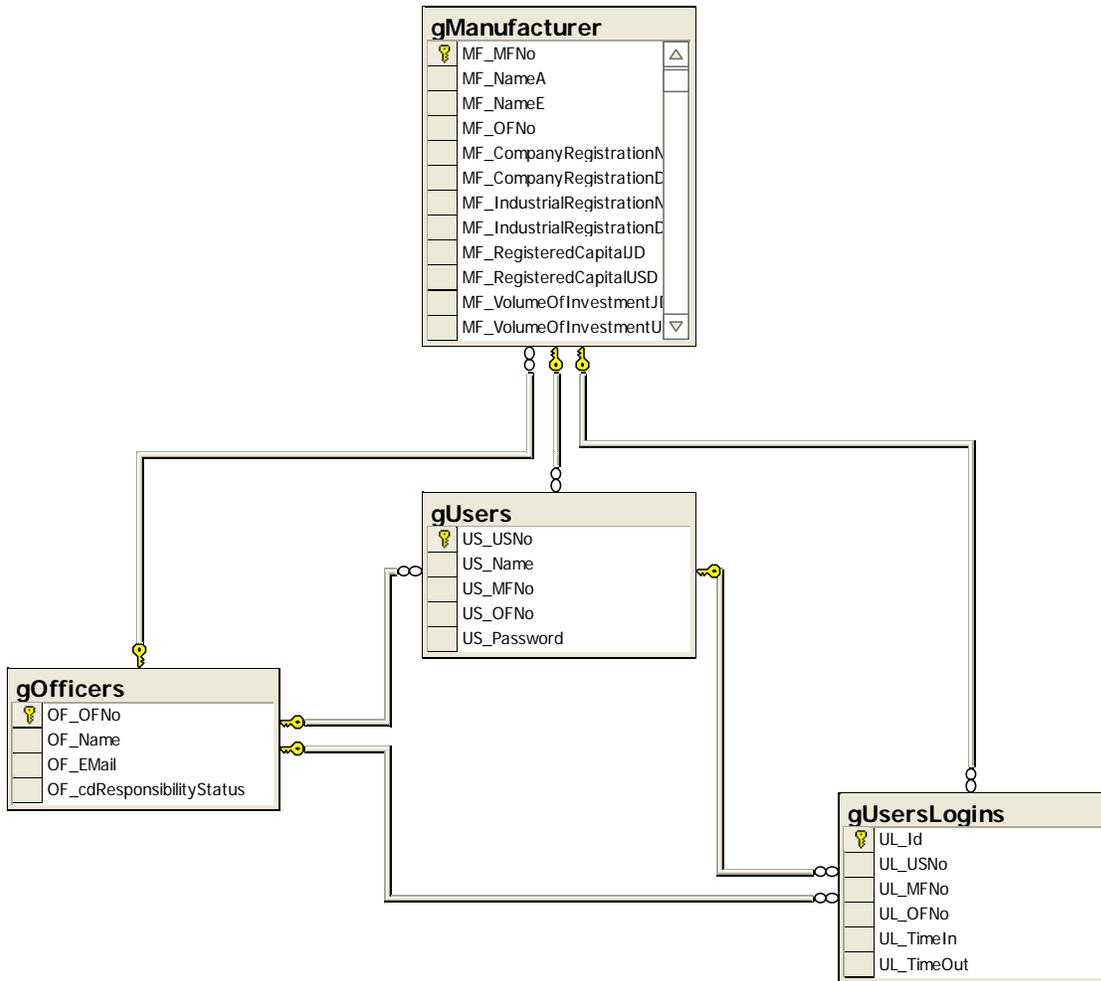
D. American Clients Entity Relations Diagram



E. HS Codes, Products and Sub-Products Entity Relations Diagram



F. Users Entity Relations Diagram



ANNEX B: Data Dictionary**A. RQPR: Qualified Product Request (QPR)**

| Column Name | Data Type | Length | Allow Nulls | Description |
|----------------|---------------|--------|-------------|--------------------------|
| RQ_RQNo | int | 4 | | Product Request No. |
| RQ_Date | smalldatetime | 4 | | Date of QPR |
| RQ_MFNo | int | 4 | | Manufacturing Company Id |
| RQ_cRQPRStatus | tinyint | 1 | | Request Status |
| RQ_ApprovalNo | smallint | 2 | ✓ | Approval Number |
| RQ_Timestamp | timestamp | 8 | | Timestamp |

B. RQPRInputs: QPR Inputs

| Column Name | Data Type | Length | Allow Nulls | Description |
|--------------------------|------------|--------|-------------|--|
| RM_Id | int | 4 | | Record Id |
| RM_RQNo | int | 4 | | Product Request No. (QPR) |
| RM_cdTypeOfInput | char | 1 | | Type of input (M: Major, I: Israeli, O: Others) |
| RM_cRInputMaterial | smallint | 2 | | Input material code |
| RM_cRTypeOfInputMaterial | tinyint | 1 | | Type of input material |
| RM_cRInputMaterialSource | tinyint | 1 | | Source of Material (QIZ, USA, Israel, West Bank, Gaza Strip, |
| RM_cUnit | tinyint | 1 | | Unit of Measure |
| RM_UnitPrice | smallmoney | 4 | | Unit Price in USD |
| RM_ConsumptionPerPiece_ | real | 4 | | Consumption Per Piece Without Waste |
| RM_ConsumptionPerPiece_ | real | 4 | | Consumption Per Piece With Waste |
| RM_Timestamp | timestamp | 8 | | Timestamp |

C. RQPRLabor: QPR Labor (Direct and Indirect)

| Column Name | Data Type | Length | Allow Nulls | Description |
|--------------------------|------------|--------|-------------|--|
| RL_Id | int | 4 | | Record Id |
| RL_RQNo | int | 4 | | Product Request No. (QPR) |
| RL_cdTypeOfCost | char | 1 | | Type of cost (D: Direct, I: Indirect) |
| RL_cRJobTitle | tinyint | 1 | | Job title id |
| RL_Local_Male_No | smallint | 2 | | No of local male employees |
| RL_Local_Female_No | smallint | 2 | | No of local female employees |
| RL_Local_Male_Salary | smallmoney | 4 | | Total salary of local male employees |
| RL_Local_Female_Salary | smallmoney | 4 | | Total salary of local female employees |
| RL_Foreign_Male_No | smallint | 2 | | No of foreign male employees |
| RL_Foreign_Female_No | smallint | 2 | | No of foreign female employees |
| RL_Foreign_Male_Salary | smallmoney | 4 | | Total salary of foreign male employees |
| RL_Foreign_Female_Salary | smallmoney | 4 | | Total salary of foreign female employees |
| RL_Timestamp | timestamp | 8 | | Timestamp |

D. RQPRProcessingCost: QPR Processing Cost (Direct and Indirect)

| Column Name | Data Type | Length | Allow Nulls | Description |
|--------------------------|-----------|--------|-------------|---------------------------------------|
| RC_Id | int | 4 | | Record Id |
| RC_RQNo | int | 4 | | QPR Number |
| RC_cdTypeOfCost | char | 1 | | Type of Cost (D: Direct, I: Indirect) |
| RC_cRDirectProcessingExp | tinyint | 1 | | Direct Processing Expenses |
| RC_Value | money | 8 | | Value of Expense |
| RC_Timestamp | timestamp | 8 | | Timestamp |

E. RQPRProducts: QPR Products

| Column Name | Data Type | Length | Allow Nulls | Description |
|---------------------|------------|--------|-------------|-----------------------------|
| RP_Id | int | 4 | | Record Id |
| RP_RQNo | int | 4 | | QPR Number |
| RP_PRNo | int | 4 | | Product Code |
| RP_HSCode | char | 7 | | HS Code |
| RP_CapacityPerMonth | int | 4 | | Capacity - Pieces Per Month |
| RP_FOBUnitPrice | smallmoney | 4 | | FOB unit price in USD |
| RP_Timestamp | timestamp | 8 | | Timestamp |

F.RQPRSupportingDocs: QPR Supporting Documents

| Column Name | Data Type | Length | Allow Nulls | Description |
|-----------------------|-----------|--------|-------------|---------------------------------|
| RD_Id | int | 4 | | Record Id |
| RD_RQNo | int | 4 | | Product Request No. (QPR) |
| RD_cSupportingDocumen | tinyint | 1 | | Category of Supporting Document |
| RD_Document | image | 16 | | Supporting Document |
| RD_Timestamp | timestamp | 8 | | Timestamp |

G. CCO: Certificate of Origin

| Column Name | Data Type | Length | Allow Nulls | Description |
|-------------------|---------------|--------|-------------|---|
| CO_CONo | char | 14 | | Certificate of Origin Number |
| CO_RQNo | int | 4 | | QPR Number |
| CO_DateOfIssue | smalldatetime | 4 | | Date of Issue |
| CO_MFNo | int | 4 | | Manufacturer Number |
| CO_CLNo | int | 4 | | American Client Number |
| CO_cdShippingMode | char | 10 | | Shipping Mode (A: Air, S: Sea) |
| CO_cPort | tinyint | 1 | | Port of Departure |
| CO_Marking | varchar | 100 | ✓ | Marking |
| CO_OriginCriteria | varchar | 50 | ✓ | Origin Criteria |
| CO_cdCOStatus | char | 1 | | C/O Status (P: Pending, S: Submitted, R: Ready) |

H. CCOProducts: Certificate of Origin Products

| Column Name | Data Type | Length | Allow Nulls | Description |
|--------------------|---------------|--------|-------------|------------------------------|
| CP_Id | int | 4 | | Record Id |
| CP_CONo | char | 14 | | Certificate of Origin Number |
| CP_InvoiceNo | varchar | 15 | | Invoice Number |
| CP_InvoiceDate | smalldatetime | 4 | | Invoice Date |
| CP_HSCode | char | 7 | | HS Code |
| CP_PRNo | int | 4 | ✓ | Product Number |
| CP_P5No | int | 4 | ✓ | Sub-product Number |
| CP_FOBPrice | smallmoney | 4 | | FOB Price in USD |
| CP_GrossWeightInKg | int | 4 | | Gross Weight in KG |
| CP_NetWeightInKg | int | 4 | | Net Weight in KG |

I. CCOSupportingDocs: Certificate of Origin Supporting Documents

| Column Name | Data Type | Length | Allow Nulls | Description |
|--------------|-----------|--------|-------------|---------------------|
| CD_Id | int | 4 | | Record Id |
| CD_CONo | char | 14 | | C/O Number |
| CD_Document | image | 16 | | Supporting Document |
| CD_Timestamp | timestamp | 8 | | Timestamp |

J. gManufacturer: QIZ Manufacturers

| Column Name | Data Type | Length | Allow Nulls | Description |
|-------------------------------|---------------|--------|-------------|---|
| MF_MFNo | int | 4 | | Manufacturer No. |
| MF_NameA | varchar | 50 | | Manufacturer Name in Arabic |
| MF_NameE | varchar | 50 | | Manufacturer Name in English |
| MF_OFNo | tinyint | 1 | | Responsible Officer Number |
| MF_CompanyRegistrationNo | varbinary | 10 | | Company Registration Number |
| MF_CompanyRegistrationDate | smalldatetime | 4 | | Company Registration Date |
| MF_IndustrialRegistrationNo | varbinary | 10 | | Industrial Registration Number |
| MF_IndustrialRegistrationDate | smalldatetime | 4 | | Industrial Registration Date |
| MF_RegisteredCapitalJD | money | 8 | | Registered Capital JD |
| MF_RegisteredCapitalUSD | money | 8 | | Volume Registered USD |
| MF_VolumeOfInvestmentJD | money | 8 | | Volume Of Investment JD |
| MF_VolumeOfInvestmentUSD | money | 8 | | Volume Of Investment USD |
| MF_AuthorizedSignatory | varchar | 50 | | Authorized Signatory |
| MF_Address1 | varchar | 50 | ✓ | Address 1 |
| MF_Address2 | varchar | 50 | ✓ | Address 2 |
| MF_City | varchar | 50 | ✓ | City |
| MF_POBox | varchar | 10 | ✓ | P.O. Box |
| MF_PostalCode | varchar | 10 | ✓ | Postal Code |
| MF_Tel1 | varchar | 15 | ✓ | Telephone 1 |
| MF_Tel2 | varchar | 15 | ✓ | Telephone 2 |
| MF_Tel3 | varchar | 15 | ✓ | Telephone 3 |
| MF_Fax | varchar | 15 | ✓ | Fax |
| MF_EMail | varchar | 80 | | Company e-mail address (used for correspondence with IDD) |
| MF_WebSite | varchar | 80 | ✓ | Company's Website Address |

K. gAmericanClients: American Clients

| Column Name | Data Type | Length | Allow Nulls | Description |
|-------------|-----------|--------|-------------|-----------------|
| CL_CLNo | int | 4 | | Client Number |
| CL_NameA | varchar | 50 | | Name in Arabic |
| CL_NameE | varchar | 50 | | Name in English |
| CL_Address1 | varchar | 50 | ✓ | Address 1 |
| CL_Address2 | varchar | 50 | ✓ | Address 2 |
| CL_City | varbinary | 50 | ✓ | City |
| CL_State | varchar | 2 | ✓ | State |
| CL_POBox | varchar | 10 | ✓ | P.O. Box |
| CL_ZipCode | varchar | 10 | ✓ | Zip Code |
| CL_Tel1 | varchar | 15 | ✓ | Telephone 1 |
| CL_Tel2 | varchar | 15 | ✓ | Telephone 2 |
| CL_Tel3 | varchar | 15 | ✓ | Telephone 3 |
| CL_Fax | varchar | 15 | ✓ | Fax |
| CL_EMail | varchar | 80 | ✓ | E-Mail |
| CL_WebSite | varchar | 80 | ✓ | Website |

L. gHSCodes: HS Codes

| Column Name | Data Type | Length | Allow Nulls | Description |
|-------------|-----------|--------|-------------|-------------|
| HS_HSCode | char | 7 | | HS Code |
| HS_Desc | varchar | 100 | | Description |

M. gProducts: Products

| Column Name | Data Type | Length | Allow Nulls | Description |
|-------------|-----------|--------|-------------|----------------|
| PR_PRNo | int | 4 | | Product Number |
| PR_HSCode | char | 7 | | HS Code |
| PR_Desc | varchar | 100 | | Description |

N. gSubProducts: Sub-Products

| Column Name | Data Type | Length | Allow Nulls | Description |
|-------------|-----------|--------|-------------|--------------------|
| PS_PSNo | int | 4 | | Sub-Product Number |
| PS_PRNo | int | 4 | | Product Number |
| PS_HSCode | char | 7 | | HS Code |
| PS_Desc | char | 10 | | Description |

O. gEMails: E-Mails

| Column Name | Data Type | Length | Allow Nulls | Description |
|--------------|---------------|--------|-------------|----------------|
| EM_Id | int | 4 | | Record Id |
| EM_RQNo | int | 4 | ✓ | QPR Number |
| EM_CONo | char | 14 | ✓ | C/O Number |
| EM_Date | smalldatetime | 4 | | E-Mail Date |
| EM_From | varchar | 100 | | From |
| EM_To | varchar | 100 | | To |
| EM_Subject | text | 16 | ✓ | E-Mail Subject |
| EM_Body | text | 16 | ✓ | E-Mail Body |
| EM_Timestamp | timestamp | 8 | | Timestamp |

P. gOfficers: IDD Officers

| Col Name | Data Type | Length | Allow Nulls | Description |
|---------------------------|-----------|--------|-------------|---|
| OF_OFNo | tinyint | 1 | | IDD Officer Number |
| OF_Name | varchar | 50 | | Name |
| OF_Email | varchar | 50 | | E-Mail Address |
| OF_cdResponsibilityStatus | char | 1 | | Responsibility Status (O: Ongoing, T: Terminated) |

Q. gUsers: System Users

| Column Name | Data Type | Length | Allow Nulls | Description |
|-----------------------|-----------|--------|-------------|--|
| US_USNo | smallint | 2 | | User Number |
| US_Name | varchar | 50 | | User Name |
| US_MFNo | int | 4 | ✓ | Manufacturer Number |
| US_OFNo | tinyint | 1 | ✓ | Officer Number |
| US_Password | char | 8 | ✓ | Password |
| US_Answer1 | varchar | 50 | ✓ | |
| US_Answer2 | varchar | 50 | ✓ | |
| US_Answer3 | varchar | 50 | ✓ | |
| US_MustChangePassword | bit | 1 | | If true, user must change password upon login. |

R. gUsersLogins: Users Logins

| Column Name | Data Type | Length | Allow Nulls | Description |
|------------------|---------------|--------|-------------|---|
| UL_Id | int | 4 | | Record Id |
| UL_USNo | smallint | 2 | | User Number |
| UL_MFNo | int | 4 | ✓ | Manufacturer Number |
| UL_OFNo | tinyint | 1 | ✓ | Officer Number |
| UL_TimeIn | smalldatetime | 4 | ✓ | Time of Logging In |
| UL_TimeOut | smalldatetime | 4 | ✓ | Time of Logging Out |
| UL_cdLoginStatus | char | 1 | | Login Status (S: Success, F: Failure, R: Request Forgotten Pa |

S. Coding tables: Ports, Direct Processing Expenses, Input Material, Type of Input Material, Input Material Source, Job Title, Supporting Documents Categories

| Column Name | Data Type | Length | Allow Nulls | Description |
|-------------|-----------|--------|-------------|-------------|
| CD_Code | tinyint | 1 | | Code |
| CD_Desc | varchar | 50 | | Description |