JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MINISTRY OF INDUSTRY
THE KINGDOM OF THAILAND

A STUDY ON THE DEVELOPMENT OF INDUSTRIAL STATISTICS IN THE KINGDOM OF THAILAND

(Phase 2)

<Computer Systems (Part-1)>

Operation Manuals for the Current Survey of Production

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UNICO INTERNATIONAL CORPORATION
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The example and explanation below can be applied for all questionaires.

Ministry of Industry (MOI) / Current Survey of Production

Questionnaire on Processing and Preserving of Fish and Fish Products

Collected by enumerators from MOI by the 10th day of the next month.

- Plant Registration No. :
- ISIC code : 1 5 1 2
- Questionnaire No : 1 5 1 2 · 1

• For the Month of Year • Name of Respondent : (TEL)

• Name of Establishment : (FAX)

• Address :

1. Finished goods (in Quantity)

Survey commodities		Code	Unit	Inventory at the beginning of the month (A)	Production *1 (B)	Receipts *2 (C)	Shipment: Domestic Sales (D)	Shipment: Export (E)	Shipment: Others *3 (F)	Inventory at the end of the month (G)	Monthly capacity *4 (H)
Canned fish	**Tuna**	101	**ton**	**100**	**100**	**120**	**145**	**200**	**140**	**50**	
	Sardine	102	**ton**								
Other main canned seafood	**Prawn**	103	**ton**	**100**	○	**120**	**140**	**180**	**120**	**40**	
	Crab	104	**ton**	○	○	○	○	○	○	○	
	Baby clam P.S.	105	**ton**								
Other main products (Please specify)		---									

Total of the factory		---	---								

← **CASE 1** :**Actual Value**

← **CASE 2** :**Un-produce**

← **CASE 3** / **CASE 4** :**Refuse to Answer**

CASE 5 :**Permanent Production Stop**

< Remarks >

Production of "**Baby Clam**" is permanently stopped.

Note: ○ **= Blank**

How to fill in the questionnaire?

CASE 1 is the normal case in which numeric values are filled in all columns of the same row.

CASE 2 indicates that the establishment has never produced this commodity (Canned Sardine) before. In this case, the respondent should draw a red line across all the columns in that row.

CASE 3 and 4 are when the establishment leaves the blank(s) or refuse to answer in one or all items of the same row instead of its answer in the previous month.

CASE 5 happens when the establishment which used to produce (Canned Baby clams) decided to stop. For this case, should be written in the commodity it (P.S) mn as above and also indicate in the <Remarks> as "Production of Baby Cram is permanently stopped." For this case , please also refer to the -*Case study for the "Permanent Production Stop"*-.

- Case Study for the "Permanent Production Stop" -

Time-series table of the response from Establishment-A

Commodity-Canned Baby Clams

Item		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG.
Production Qty	Figure	**1,524**	**0**	**0**	**0**				**1,300**
	Attribute	AV	AV	AV	AV	PS	UP	UP	AV
Inventory	Figure	**2,249**	**1,359**	**575**	**115**				**0**
	Attribute	AV	AV	AV	AV	PS	UP	UP	AV
Shipment	Figure	**890**	**784**	**460**	**115**				**1,100**
	Attribute	AV	AV	AV	AV	PS	UP	UP	AV

Attribute: AV = Actual Value
PS = Production Stop
UP = Un-Production

*When the establish can not fill all the items of this commodity, the user should set "Production Stop" as an attribute for the items.

At this month, the establishment decided to produce this commodity (Canned Baby Clam) again , so the attribute becomes "Actual Value" for this month and onwards.

- In the above example, the establishment has stopped the production of Canned Baby Clams since February so the "Production Quantity"became "0". However, "Inventory" and "Shipment" are remained to be answered as for the fact that although the commodity is not produced anymore, there are still some left in the stock and to be shipped.

- The figures are continued to be filled in until May when all the figures become "0." Therefore, all items in May will be set as "Permanent Production Stop."

- At the month of June and onwards, "*Un-Production* " status / attribute is to be set for the commodity.

- In August, however, the establishment decided to start producing Canned Baby Clam again. In this case , the attribute of data in August and onwards will be changed to "Actual Value" again.

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<Definition of the Functions>

1. Scope of development
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Scope of development

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1. Purpose of development

The purpose is to add some new functions into the current system that was created in Phase-1 for the processing of data representing the "core- nine industries" covered by the pilot survey, in order to be prepared for the expansion of the survey scope.

Points of improvement (objective of the additional development) are mentioned as follows,

(1) In order to increase the number of surveyed from 400 to around 1000, an off-the-shelf, standard database management system (ORACLE) will have to be introduced. And, the transition to the "Client-Server" system that allows multi-user control will be promoted in order to meet a conceivable increase in user population.

(2) The program logic of index calculation will be changed in order to correspond to the change of the methodology for the index calculation (**from "Value added" to "Weighted average"**).

(3) The function that **distinguish the survey-scope of 400 establishments (pilot) from around 1000 establishments (expansion)** will be added in order to grasp 2 kinds of the findings on each survey-scopes for the time being.

(4) The function that **defines "Continuous Respondent" as the target-establishment of the calculation-basis for index** will be provided also. However the definition of the "Continuous Respondent" should not be changed by the next revision of the survey base. (The function that distinguishes the response rate on all the establishments from the collection rate on all the continuous respondents will be given.)

(5) The function that **defines "the target-commodity for the index calculation"** will be provided also. (As we should not change the number of the target-establishments for the calculation-basis by each index, we dare to avoid providing the function that defines "the target-establishment by each index calculations".)

(6) The function that **warns to the input value that deviates remarkably from the continuity** (by comparing with the findings of the previous month/previous year) will be provided. And, it also warns the case that the **balance of the input values is inadequate**.

(7) The function that outputs the **summary proof of the survey-data** will be also developed in order to support the examination work.

(8) The output function that provides the **analysis report of the contribution degree and the contribution ratio etc…** will be also developed.

(9) The output function that creates the **graphs and the time-series tables for the dissemination report** will be also prepared. (However, the indices which are prepared in this development are 6 kinds, such as, **①production, ②shipment, ③inventory, ④inventory ratio, ⑤capacity utilization, ⑥labor productivity)**

(10) Further more, the function that realize to provide the output of above mentioned indices by 5 levels of aggregation, such as **① by commodities, ② by questionnaires, ③ by ISIC 4 digits, ④ by ISIC 2 digits, ⑤ on all the manufacturing.**

(11) The program of an **automatic estimation** will be developed also, in order to settle the case that the missing data are found in the collected questionnaires. And it can be used only when no answer was obtained from an establishment (or unable to obtain the questionnaire) by the deadline of a monthly report.

Three methods of automatic estimation will be provided on this system, namely: ①To apply the figure from previous month; ②To apply the figure from the same month of the previous year; and ③To apply the calculated figure with taking the growth rate of the industry into it. If an alternative method is required, the user should apply the figures by the manual estimation.

(12) The advanced function to **define an attribute to each input values** will be added in order to recognize their meaning and the characteristic, such as "Actual value" or "Estimated value" for the input values. (For the blanks, "Not Produced" or "Temporary suspension of the production activity" or "Production discontinuous by the evacuation from the market" etc…)

(13) The **jurisdiction control** will be provided, such as ①IDSS which is in charge of input, ②IIS which is in charge of modify and output, ③System administrator who executes the monthly process (to fix the data of preliminary report/revised report).

(14) **The version control program for the survey-data and the findings** will be provided also. (It makes duplication data as of the deadline of the preliminary report/revises report.)

(15) To keep correspondence with the new additional items in the newly designed questionnaire, such as **①Inventory at the beginning of the month, ②Receipts, ③Sales plan, ④Labor input on the total in the factory, ⑤Labor input for the survey commodity etc…**

(16) The function that **copes with the "Coefficient of Linkage"** will be provided also. (However, the automatic calculation for preparing the **Coefficient of Linkage** itself is NOT included in this function.)

(17) The program of the **annual revision processing** will be developed also, in order to settle the case that the additional or revised data are obtained after the fixation (dead-line) of monthly revised report (data). Although the output function of the annual revision is identical to the one used for the monthly report, the result (output) of the annual revision can be obtained by re-generating of the monthly reports on the past 12 months, because the monthly record of revised data will be replaced by the latest data.

2. Scope of deployment by the end of December 1999

Our short-term objective is to create all the functions that are mentioned as above except (11).

About "(11) Automatic estimation", there are some possibility that IIC's temporary staff may count on the system and bypass the routine procedure of confirmation with establishments, because of convenience. If the dependence on the system is too high, there are some risk that the findings which are given by this system have significant deviation from the actual situation. Therefore, the JICA study team does not recommend this function for important purposes.

And, there are a possibility that the estimated data does not fit the equilibrium equation consisting of the related items (Inventory of this month = Production + Inventory of previous month - Shipment). It requires further discussion to define the logic and the specification to make accurate estimates without losing the balance. For these reasons, it is very difficult, if not impossible, to complete all the development tasks, such as fixation of the specification, development of the program, test and examination, by the end of December.

Therefore, on the development of "Automatic estimation", we aim to complete the only two methods, namely ①To apply the figure from previous month; and ②To apply the figure from the same month of the previous year. (There are a possibility that this function will not be completed). So far as we can allocate some extra work hours in the schedule, we would like to develop method ③: To apply the calculated figure with the growth rate of the industry.

In the same period, we performed the following tasks.

- Data Transition from the current pilot system to the new system.
- Verification of the calculated indices
- Registration for the data of the newly targeted establishments and commodities into the Master File. (by IIC stuff)
- Preparation for the weight of the index calculations (to the Master file) by commodity (industry).

3. Scope of the related work for system development by the end of March 2000

From the end of 1999 to March 2000, we performed the following tasks.

- Modification for the specification of the system that will be completed by the end of 1999. (But, it could **NOT** exceed the limitation of M/M.)
- Guidance and training for the IIC stuff and the long-term expert (about only the system operation)
- Preparation of the user's manual and the operation manual
- **To find the system maintenance service provider:**→ As the period of system support by our team will expire at the end of March 2000, IIC have to enter into a system maintenance support contract with a local company in order to cope with system-related troubles anticipated, to ensure the continuous operation after March 2000. (Needless to say, "Open Software Engineering" is recommendable.)
- Distribution of the computers that ware used for the development (2 units out of 6) to IDSS and IIS. (because only 3-4 computers will be used for the modification but the rest of 2 computers will be available.)

4. The work (expense) required after finishing of the Phase-2 project

After May or June 2000, the following tasks will be required.

- System maintenance work （by Open Software Engineering?）
- Registration for the data of the newly targeted establishments and commodities into the Master File, in the case that IIC decide to expand the survey scope. (by IIC stuff)
- Distribution of computers that were used for the development (3-4 units) to each sections in IIC.
- In the case that it will be required to have some additional functions, (Ex. The other index calculation, etc…) → ①additional modification by IIC stuff, or

② additional development by a local software company (in this case, development budget will be required.)

- **Re-setting of the network and the computers, peripheral equipment when the office will be moved.** → ①by IIC stuff, or ②by a local software company that will be entrusted with the maintenance support (in this case, additional budget will be required.)
- To add the function of data-pass to the internet server → ①by IIC stuff, or② by computer section of OIE stuff, ③by a local software company that will provide maintenance support service (in this case, additional budget will be required.)

Definition of New Functions

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1. Automatic checking functions for the prevention of incorrect entry (by each questionnaire)

The system will display the WARNNING messages on the input screen when the input-data falls under any of the following.

(1) <Input-Check by each Commodities & Items>

① Data Type (Numeric/Character)

- In the case that the input value has a wrong data-type
  (Ex. In the case that the user enters a character in an input area which accepts a numerical value only such as “Production Qty” etc.)

② Comparison with the previous month/the same month of the previous year

- In the case that the input value deviates more than 10% from the figure of the previous month or the same month of the previous year (The allowable range of deviation can be preset with reference to the Master file by each item.)
  - ✧ This function will cover the checking for an inappropriate column.
  - ✧ In the case that the object month is in the starting year of the survey (1999), “Comparison with the same month of the previous year” does not execute.

(2) <Input-Check by each Commodities>

③ Not Filled

- In the case that all the items such as “Production Qty”, “Shipment Qty”, “Finished goods-Inventory”, “Processing Capacity”, “Shipment Value”, “Sales plan” are not assembled, although one of these items was input (0 is admitted as an input-value).

④ Continuous Response

- In the case that the value of the survey month is not input although the same item of the previous month is already input in the past.

⑤ Logical Balance

- In the case that the "Month-end Inventory" of this month is not equal to the value which is calculated by following formula,

Month-end inventory = Production + Receipts + Month-end inventory (of the previous month) – Total shipment

⑥ Unit Price

- In the case that the input value deviates more than 10% from the figure of the previous month or the same month of the previous year. (The allowable range of deviation can be preset with reference to the Master file by each item.)
  And, the formula that calculates the unit price is shown as follows.

Sales Plan(Value) ÷ Sales Qty

⑦ Fluctuation of the Employees

- In the case that the "Total number of workers" deviates more than 10% from the figure of the previous month or the same month of the previous year (The allowable range of deviation can be preset with reference to the Master file by each item.).

⑧ Fluctuation of the Operating Days

- In the case that the "Average Working Days" is exceeded the total days of the survey month (Ex. January = 31 days, February = 28 days…etc.).

⑨ Fluctuation of the Operating Days comparison with the previous month

- In the case that the "Average Working Days" deviates more than 10% from the figure of the previous month or the same month of the previous year (The allowable range of deviation can be preset with reference to the Master file by each item.).

2. Output of the "Warning History"

In order to confirm the warning history after making entry making entry on the computer screen, the system will print out the log list of warning by each questionnaire (establishment).

3. New functions on the input screen

(1) Attribute - setting for the input values

In order to distinguish the meaning (attribute) of each input value (data), the input screen should have the "list-box" (which is capable of selecting the attribute) beside each input area (item) because it's impossible to identify the attribute of the data by only numeric value and blank.

<For the blank items which have NOT been obtained the continuous response in the past>

① "Un-produced"

All the input area will be set as "Un-Produced" initially

<For the blank items which have been obtained the continuous response in the past>

When the user push the "OK" button to register the data of a questionnaire, following (2), (3) or (5) should be selected as the attribute of the data.

* However, it should not be input only the attribute but also the numeric value if (5) was selected.

② "Production Discontinuance" **(Complete market evacuation)**

An establishment may withdraw from the market due to bankrupt or other reasons. In this case, IIC is expected to receive the questionnaire containing the figures of shipment and inventory but production and for the time being.

So, the system will not execute the Input-Check which are mentioned in above 1. (2) in the case that "Production Discontinuance" is set as the attribute to the item.

③ "Automatic Estimation"

If the user select "Automatic Estimation" as attribute to the blanked item, the system will execute the calculation process that is mentioned as following ②. However, it should not be used to prepare the revised report.

<For the numeric values>

④ "Actual Value"

The system will set the "Actual Value" as the attribute to the item when the numeric value was input to the item.

⑤ “Manual Estimation”

The user should set the attribute as “Manual Estimation” in the case that the establishment has reported an estimated value in the questionnaire due to the lack of actual data for the preliminary report, and the user inputs the estimated value manually.

(2) Automatic estimation for the missing data (data not collected from the establishments)

The user should set the estimation method (pattern) in “Establishment Master (file)” out of the following choice.

① Applying the figure **from the same item of previous month**

② Applying the figure that is **calculated by the growth rate** of the commodity group.

Estimated figure = Value of the previous month × Growth rate

* Growth rate = Total figure of the previous month (excluded the uncollected establishment in this month)/Total figure of the this month

4. Output functions

(1) Output program of the summing-up data for examination

① (1) Summary & Detail List of the Actual Figures

✧ Quantity will be multiplied by the unit price shown by the establishment, and be calculated to make the share for each. (Because some commodities have two or more units)

① (2) Summary & Detail List of the Actual Figures

① (3) Summary & Detail List of the Actual Figures

① (3) Summary & Detail List of the Actual Figures

① (4) Summary & Detail List of the Actual Figures

② Establishment list of the contribution ratio

(2) Output program for listing of the information for analysis

③ Time series list of figures by commodity
④ (1) Index list of the growth rate by commodities in the industry (Pattern 1)
④ (2) Index list of the growth rate by commodities in the industry (Pattern 2)
⑤ Comparison list with the figures in the previous month/ the same month of the previous year by industry
⑥ Comparison list with the figures in the previous month/the same month of the previous year by commodity
⑦ (1) List of time-series indices list by commodity (Pattern 1)
⑦ (1) List of time-series indices list by commodity (Pattern 2)
⑦ (2) List of time-series indices list by industry (Pattern 1)
⑦ (2) List of time-series indices list by industry (Pattern 2)

(3) Listing program for the comparative factor analysis between the preliminary publication and the revised one

⑧ The balance-comparison of the growth rate between “preliminary” and “revised” report

Contribution degree of the revised report － Contribution degree of the preliminary report = Balance of the contribution degree

(4) Report program for dissemination

⑨ (1) List and Graph for dissemination (Pattern 1)
⑨ (2) List and Graph for dissemination (Pattern 2)
⑩ List and Graph for dissemination (Annual Report)
⑪ Form of general explanation
⑫ (A) Graph and Table for General Explanation
⑫ (B) Graph and Table for General Explanation

5. Other functions

The following functions are now under review in JICA Study Team.

① User-ID Control for recording of the input-log

② User-Setting of the range for the aggregation to the Master file, in order to categorize the small commodity groups.

<Attachment>

Figure 1. Type of the Attribute

Attribute Type	Object Data	Response Status
Actual Value	for Numeric Value (including 0)	for Continuous Response
Un-Produced	for Blank	for **Not** Continuous Response
Production Discontinuance	for Blank	for Continuous Response
Automatic Estimation	for Blank	for Continuous Response
Manual Estimation	for Numeric Value (including 0)	for Continuous Response

Figure 2. Image of the new input screen

1.Finished Goods

Commodity / Item		Production A		Receipts B	(↓Attribute)
Canned Fish	Tuna	5,325		234	V
	Sardine				U
	Salmon				U
Other Canned Seafood	Prawn & Shrimp				U
	Crabs	12,343		342	V
	Oyster				X
	Baby crams	3,456		0	M
	Squid	0		0	V
	Shark fin	3,456		65	

U. Un-Produced
S. Permanent Production Stop
X. Automatic Estimation
V. Actual Value
M. Manual Estimation

↑ List Box for a selection of the attribute

General Explanation of the Automatic Estimation Process

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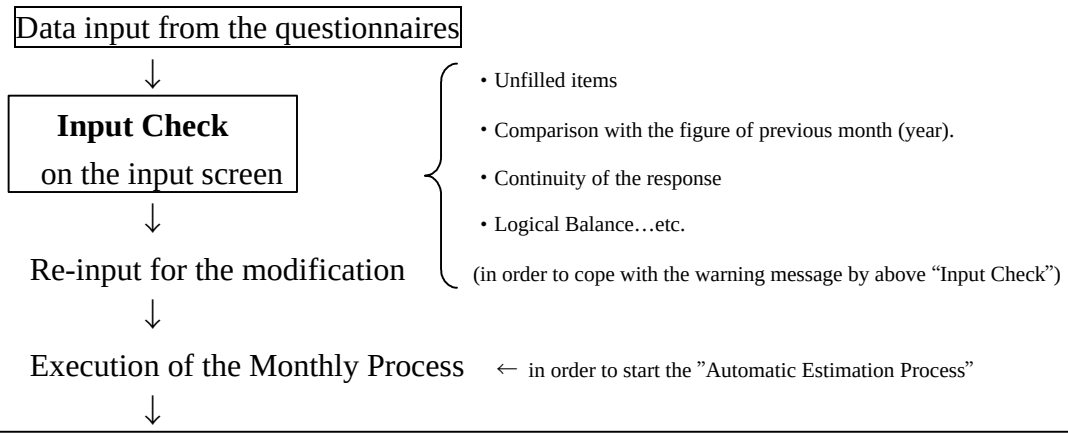
Process Flow and the explanations of the "Automatic Estimation Process"



Automatic Estimation Process

① Calculation of the growth rate (by commodity) for the automatic estimation

The system will calculate the growth rate for each commodity on the basis of the figures which represent actual values not only on this month but also the previous month.

* In the case that it contains any blanks or the estimated values on the data of this month or the previous month, that commodity will be excluded for the calculation basis of the growth rate. (*"0" is admitted as an actual value.)
* The result of the calculation (growth rate) will be saved in the temporally file until the next dead line of the monthly process. And then, it will be deleted and the new calculation result will be saved in the temporally file.

② Replacement to the estimated figures

The system will calculate the figures based on the estimation method which was already set in the "Establishment Master" (by each establishment). The three kinds of the estimation method is prepared by this system.

a) To apply the figure of the same item on the previous month
b) To apply the figure of the same item on the same month of the previous year
c) To apply the figure that was multiplied by the growth rate of that commodity to the same item on the previous month

* Replaced data will have the attribute of "Estimated Value after the monthly process in order to be distinguished from the actual values.
* In the case that it contains any blanks or the estimated values on the data of this month or the previous month, the data of that item will be a "blank" (Null) because this system is not designed to calculate them automatically . Instead the problem will be recorded in the list of "Error Log Report" which will be printed outer the monthly process.

③ Adjustment of the logical balance after the "Automatic Estimation Process"

The system will revise the figure of "Inventory Qty" in order to keep the logical balance. (The detail explanation is mentioned at 5. in the following chapter)

↓

Listing of the "Error Log Report" →In the case that it contains any blanks or the estimated values on the data of this month or the previous month, the data of that item will be a "blank" (Null) because it is impossible to calculate automatically by this system. And this problem will be recorded in the list of "Error Log Report" which will be printed out after the monthly process.

↓

Listing of the "Estimated Questionnaires" →questionnaires not received by the dead line of the monthly process will be listed in order to identify which establishment's data was estimated by automatically in the monthly process.

↓

Re-input for the modification * in order to modify the data based on the indication on the "Error Log Report". The "Automatic Estimation" will be repeated if it is required.

↓

Duplication of the monthly data (Fixation of the data on the preliminary or revised report)

↓

Execution of the "Index Calculation Process" (It will be calculated by each aggregation level)

※ This process is separated from the "Automatic Estimation Process" in order to give a chance to modify the data before fixation of the monthly data. These monthly process should be executed by a technical stuff of computer section in IIC.

1. Attributes of the input data

In order to distinguish the meaning (attribute) of each input value (data), the input screen should have the "list-box" (which is able to select the attribute) beside each input area (item) because it's impossible to identify the attribute of the data by only numeric value and blank.

<For the blank items which have NOT been obtained the continuous response>

① "Un-produced"

All the input area will be set as "**U:** Un-Produced" initially.

<For the blank items which have been obtained the continuous response in the past>

When the user registered the data of a questionnaire, following ②, ③ or ④ should be selected as the attribute of the data.

* However, it should not be input only the attribute but also the numeric value if the following ⑤ was selected.

② "Permanent Production Stop (Discontinuance)" (= complete market evacuation)

Some of surveyed establishments may exit the market due to the bankrupt or other reasons. In this case, IIC must be received their questionnaire with the figures of shipment and inventory but production and for the time being.

So, the system will not perform the Input-Check, which are mentioned in above 1. (2) in the case that "**S:** Permanent Production Stop" is set as the attribute to the item.

③ "Automatic Estimation"

If the user select "**X:** Automatic Estimation" as attribute to the blanked item, the system will execute the calculation process that is mentioned as following ②.

However, it should not be used for preparation of the revised report.

<For the numeric values>

④ "Actual Value"

The system will set the "**V:** Actual Value" as the attribute to the item when the numeric value was input to the item.

⑤ **"Manual Estimation"**

The user should set the attribute as "**M:** Manual Estimation" in the case that the establishment reported its estimated value in the questionnaire when it is unable to obtain data for the preliminary report, and the user input the estimated value by manual.

⑥ **"Estimated Value"**

After the processing of "Automatic Estimation", the attribute of input data that are calculated by the system will be replaced to the attribute of "**Y:** Estimated Value", in order to distinguish between ①the item which are requesting to be automatically estimated and ②the item which are already estimated.

2. Three choices of the method of "Automatic Estimation" for the missing data (un-collected data from the establishments)

IIC can set the estimation pattern for each establishment by registering into the "Establishment Master" out of the following choice.

① Applying the figure of the same item on **the previous month**

② Applying the figure of the same item on **the same month of the previous year**

③ Applying the figure that is **calculated by the growth rate** of the commodity group.

Estimated figure = Value of the previous month × Growth rate

* Growth rate = Total figure of the previous month (excluded the un-collected establishment in this month) / Total figure of the this month

3. Exception on the scope of "Automatic Estimation"

(1) The items which should **NOT** be applied the method of using the calculated figure which was multiplied by the **growth rate** of that commodity to the same figure on the previous month:

Capacity is not changeable thorough all seasons and it is not relevant to the Growth Rate of each item.

Therefore, even if the establishment have been set the estimation code (method) in the "Establishment Master", the system will apply the method of copying from the previous data.

(2) The items which are **out of the scope** for "Automatic Estimation":

Business Perception is impossible item for estimation.

Sales Plan is also impossible item for the estimation because this item should be a based on the policies.

(3) Estimation for the **"Shipment Value":**

About the **Shipment Value,** the system will calculate by the following formula,

Unit Price × Growth Rate of unit price = Unit price of this month

(4) Estimation for the **"Total"** of the shipment value:

The **"Total"** of the shipment value is NOT only a total amount of the shipment value for the listed commodities on the questionnaires, but also for the total amount of the factory (including the commodities that are not listed in the questionnaire).

4. The cases which are the target of "Error Log Report"

(1) In case of the item's attribute of the previous month (or the same month of the previous year) is the **"U: Un-Produced"**

※Error Code = "N" + Item Type + Item Order No

(2) In case of the item's attribute of the previous month (or the same month of the previous year) is the **"S: Production Stop"**

※Error Code = "S" + Item Type + Item Order No

(3) In case of the item's attribute on the previous month (or the same month of the previous year) is the **"Y: Estimated Figure"** (which was "X: Automatic Estimation" before the monthly process) **or "M: Manual Estimation"**

※Error Code = "X" + Item Type + Item Order No

(4) In the case one of the attribute of the items that are relevant to the "**Logical Balance"** are set as the target of **"X: Automatic Estimation**".

(In the above case, every attributes of logical balance-items will be set as the "Y: Estimated Value" after the monthly process.)

※Error Code = "R" + Item Type + Item Order No

(5) In case of there is **No Record** on the previous month (or the same month of the previous year)

※Error Code = "Z" + Item Type + Item Order No

(6) In the case that the estimated result of "Month-end Inventory" is **Less than 0**.

※Error Code = "L" + Item Type + Item Order No

- If you change the estimation method from the ①to apply from the previous year to ②to apply from the previous month's data after the "Automatic Estimation Process", the error message of the case in "Un-Produced" that is mentioned above (1) will appear on the "Error Log Report", when IIC executed the "Automatic Estimation Process" again.

  The system will create dummy records of the "estimation questionnaire" at the 1st execution of the "Automatic Estimation Process", and all of the items' attributes are set as "Y: Estimated Figure". But, at the beginning step of the 2nd execution of the "Automatic Estimation Process", these attributes will be replaced with "X: Request for Auto-Estimation" because it should be re-estimated by the revised figures that was modified after the 1st execution of the "Automatic Estimation Process".
  Therefore, the remaining dummy record will request for the "Automatic Estimation" because of the attributes' setting, and if the record of the previous year has the attribute of "U: Un-Produced", the error message of the case in "Un-Produced" on the "Error Log Report"

5. Adjustment for keeping of the "Logical Balance"

In the case that ALL the items which are relevant to the logical balance such as "Production (Qty)" (including "Receipts"), "Shipment (Qty)" (including "Domestic Sales" and "Export" and "Others"), "Finished-goods Inventory"(both at the beginning of the month and the end of the month) are not answered by the end of deadline for the monthly process, even though the big efforts of IDSS to detect the missing data from the establishments, the system will execute the following tasks as an "automatic estimation process".

(1) Firstly, the system will **supply the estimated values for all the items that are relevant to the logical balance** (such as "Production", "Shipment", "Inventory") by the defined method in "Establishment Master".

<Estimation Method>

1) To apply the figure of the same item on the previous month
2) To apply the figure of the same item on the same month of the previous year
3) To apply the figure that was multiplied by the growth rate of that commodity to the same item on the previous month

(2) Secondly, the system will **replace the value of "Beginning-month Inventory" with "Month-end Inventory" of the previous month.**

(3) Finally, in order to keep the logical balance, the system will **replace the value of "Month-end Inventory" with the estimated value** that was calculated by the following formula.

Month-end inventory = Production + Receipts + Beginning-month inventory – Total shipment (Domestic Sales + Export + Others)

6. The reason of recommendation about this logic

(1) The most important aspect of this industrial statistics survey is to obtain vital business data such as "Production", "Shipment", "Inventory" from establishments for the purpose of determining the production indices, shipment index, inventory index, inventory ratio index and so on. The logical balance is not first priority. So, even if only one data is missing, so far as it's the vital data (such as "Production", "Shipment", "Inventory"), credibility on all data for that commodity become low. For example, if a certain establishment answered the "Shipment Qty" and "Inventory" but "Production Qty", an important question arises: How can they calculate their "Inventory" without using their "Production Qty"? Accordingly, we should suspect the value of "Inventory" on the answered questionnaire. It is meaningless to retain the answered figure of all the items on that commodity in this case.

(2) If only one data is missing, IIC can easily estimate it by manual way (reverse calculation of the logical balance formula), but IIC still should confirm the value for the establishment because there may be some complications as mentioned above. (If two or more data are missing , it is not possible to estimate them by reverse calculation of the logical balance formula.)

(3) It is very difficult for the IIC staff to recognize and distinguish the actual value and the estimated value by each item and commodity level. If you obtain the series of data which include a missing data on a certain commodity, it should be necessary for the IIC to get the actual data from the establishment after the monthly process (including “automatic estimation”). There is rare case that they revise only one data that belongs to the logical balance on the commodity.

(4) It is dangerous for the IIC to feel relieved because of the existence of some actual values in the estimated data on the commodity. Even if the missing data is only one item, we should keep suspecting for the commodity’s data.

(5) The design of our estimation logic is based on the estimation program in Japanese MITI as a standard model.

< Operational Procedure Manual >

Volume II

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<Operation Manual Procedure Manual>

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2. Operation Procedure Manual of the Preliminary Statistics Processing System

Operation Procedure Manual
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[Prologue]

This document is prepared for IIC to carry on the smooth operation for the monthly statistics processing system.

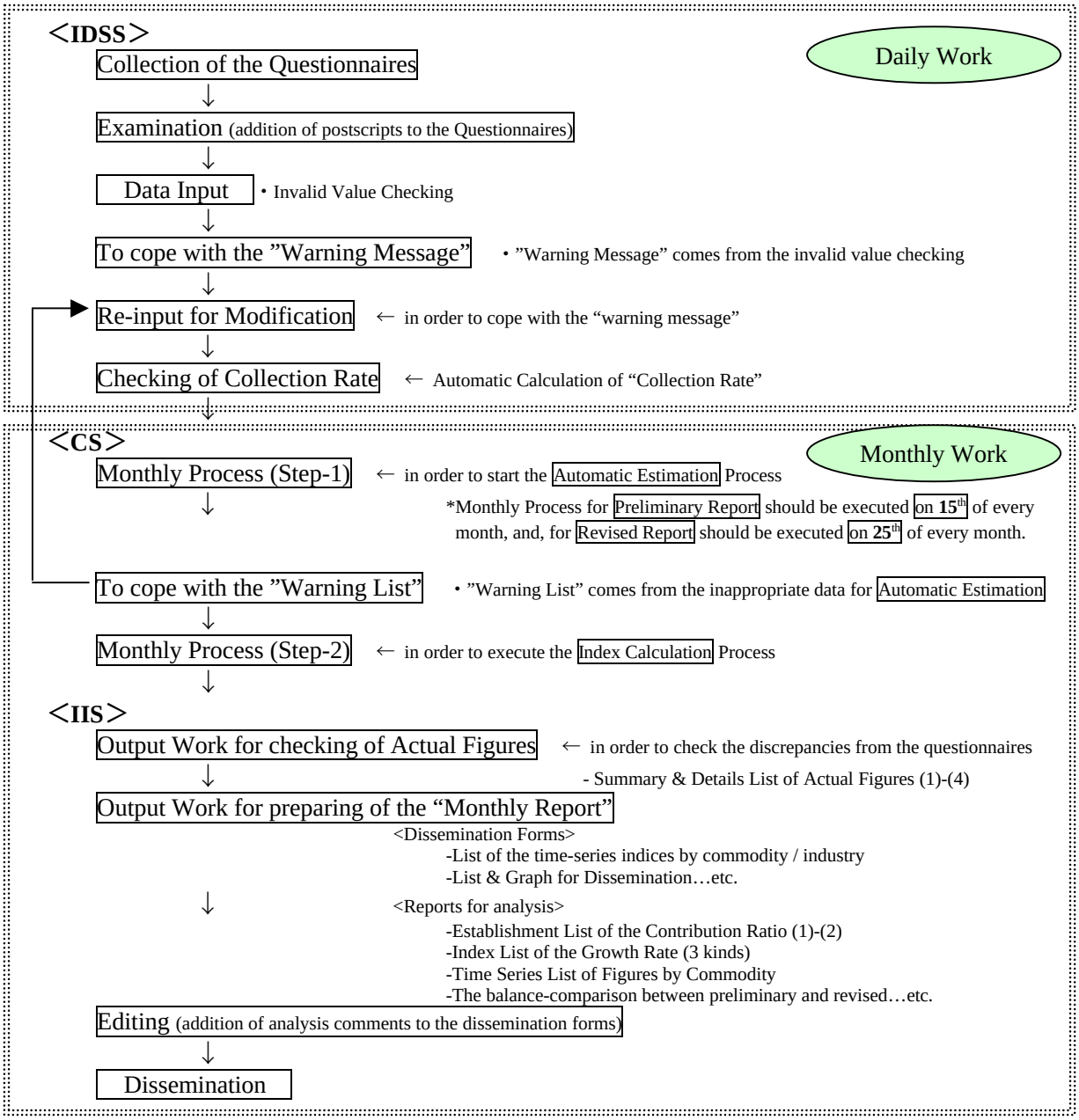
The chapters in this document are arranged in the operational order of the actual work procedures.

As the names of the team in IIC are indicated besides the title (chapters), the user can recognize which team should be in charge of each procedure.

*All the acronyms of the team's name in IIC are listed as follows,

＜IDSS＞	= Industrial Data System Section	(Leader : Mr. Anan)
＜IIS＞	= Industrial Index Section	(Leader : Ms. Venus)
＜CS＞	= Computer Section	(Leader : Mr. Skit)

[General Process Flow of the Routine Work for the System Operation]



<IDSS>

1. Collection of the questionnaires from surveyed establishments

Most questionnaires are collected from surveyed establishments by mail or enumerators by the deadline date of the month (of the preliminary report/the revised report).

When IIC receive the questionnaires, they should be examined promptly by the examination staff of IDSS at first.

2. Examination work before the data-inputting

- How to prepare the marking on the questionnaire in order to pass it to the input staff?
  (Please refer to the attached document of Attachment-1: “How to fill the questionnaire”.)
- How to pass the questionnaire to the input staff?

3. Operation process for data-input of the questionnaire

- How to enter the data on the questionnaire?
- How to define the attribute of the data on the questionnaire?
  (Please refer to the Attachment-2: “How to set the attribute of the data”.)
- How to define the attribute of the data on the questionnaire?

4. Estimation of the collection rate (survey-scope / index calculation basis)

As the collection rate should be grasped by all of the staff in IDSS everyday, the input staff should check the collection rate of each survey scope (around 400 establishment-basis and around 1,000 establishment-basis) on the screen of this system and print each list of collection rate in every morning.

(Detailed manners of the operation are mentioned in the “Computer Operation Manual of the New Statistics Process System”.)

5. Input work (Re-input) for the modifications

(in order to cope with the "Warning Message" from the checking program)

The following checking functions are prepared for validating the input values.

(1) <Input-Check by each Commodities & Items>

① Data Type (Numeric/Character)

- In the case that input value has an incorrect data-type
  (Ex. In the case that the user input the character to the input area which should be primarily a numerical value such as "Production Qty" etc.)

② Comparison with the previous month / the same month of the previous year

- In the case that the input value deviates more than 10% from the figure of the previous month or the same month of the previous year (The limitation of the range of deviation can be set to the Master file by each item)
  - ✧ This function will cover the checking for the inappropriate column.
  - ✧ In the case that the object month is in the starting year of the survey (1999), "Comparison with the same month of the previous year" does not execute.

(2) <Input-Check by each Commodities>

③ Unfilled items

- In the case that all the items such as "Production Qty", "Shipment Qty", "Finished goods-Inventory", "Processing Capacity", "Shipment Value", "Sales plan" are not assembled, although one of these items was input (0 is admitted as an input-value).

④ Continuous Response

- In the case that the value of the survey month is not input although the same item of the previous month is already input in the past.

⑤ Logical Balance

- In the case that the "Month-end Inventory" of this month is not equal to the value which is calculated by following formula.

Month-end inventory = Production + Receipts + Month-end inventory (of the previous month) – Total shipment

⑥ Unit Price

- In the case that the input value deviates more than 10% from the value which is calculated by the following formula. (The limitation of the range of deviation can be set to the Master file by each item.)

Shipment (Value) ÷ Sales Qty

⑦ Fluctuation of the Employees

- In the case that the "Total number of workers" deviates more than 10% from the figure of the previous month or the same month of the previous year (The limitation of the range of deviation can be set to the Master file by each items).

⑧ Fluctuation of the Operating Days

- In the case that the "Average Working Days" exceed the total days of the survey month (Ex. January = 31 days, February = 28 days…etc.).

⑨ Fluctuation of the Operating Days comparison with the previous month,

- In the case that the "Average Working Days" deviates more than 10% from the figure of the previous month or the same month of the previous year (The limitation of the range of deviation can be set to the Master file by each items).

If the system finds the invalid data that was entered by the user, a list of the "warning messages" will appear on the input screen when the input staff finished to input the data of a questionnaire from an establishment.
The input staff should solve the problem that is mentioned on the "warning messages" to complete the data inputting. (If the "warning messages" has too many contents, the user can should print it our by the [Print] button.)
(Please refer to the Attachment-3: "How to cope with the Warning Messages".)

<CS>

6. Operation work for the "Monthly Process" (tentative fixation of the data for the preliminary report/the revised report)

The Monthly Processes (Preliminary Report Process, Revised Report Process and Yearly Report Process) will be executed by the technical staff of the computer section in IIC who is registered as an "administrator" in the "User-ID Master" (the value of Jurisdiction table = "1").

The system will check the security level (user's jurisdiction) from the User-ID. If the user is not an "administrator", the Monthly Process ("batch process") can not be executed.
If the user was recognized as the "administrator" by the system, the "Batch Process Screen" will be open and the program will show the date of the past record of the "batch process" execution (in the year).
Then, the user should define the month of the year for stating the execution of the monthly process.
The following explanations are about the buttons on the "Batch Process Screen".

<Pre Report Process>

The program will check the status of the execution record for the Revised Report Process on the previous month that the user defined to start the monthly process. If the Revised Report Process on the previous month is not executed by the time, the system basically will not permit to execute the monthly process for the "Preliminary Report". Therefore, the user should have done the monthly process of the Revised Report Process on the previous month by the time.

* However, the system has a loophole when IIC has to skip the normal step.
  By clicking the button of "Continue" that will be shown when the warning message is coming up at the end of the operation to define the term (month/year) of the monthly process, the administrator can proceed the monthly process even the Revised Report Process on the previous month had not been executed by that time.

<Rev Report Process>

The program will check the status of the execution record for the Preliminary Report Process on the month that the user defined to start the monthly process. If the Preliminary Report Process is not executed by that time, the system basically will not permit execution of the monthly process for the "Revised Report". Therefore, the user should have done the monthly process of the Revised Report Process on the previous month by the time.

* However, the system has a loophole when IIC have to skip the normal step.
  By clicking the button of "Continue" that will be shown when the warning message is coming up at the end of the operation to define the term (month/year) of the monthly process, the administrator can proceed the monthly

process even the Preliminary Report Process had not been executed by that time.

<Yearly Report Process>

The program will check the status of the execution record for the Revised Report Process on the previous month that the user defined to start the monthly process. If the Revised Report Process on the previous month is not executed by the time, the system basically will not permit execution of the monthly process for the "Preliminary Report". Therefore, the user should have done the monthly process of the Revised Report Process on the previous month by the time.

* However, the system has a loophole when IIC have to skip the normal step.
  By clicking the button of "Continue" that will be shown when the warning message is coming up at the end of the operation to define the term (month/year) of the monthly process, the administrator can proceed the monthly process even the Revised Report Process on the previous month had not executed by that time.

Process	Error Case
Preliminary Report	Revised Date in Previous Month = NULL (Nothing)
Revised Report Process	Preliminary Date in Same Month = NULL (Nothing)
Yearly Report Process	Revised Date in Same Month = NULL (Nothing)

<Preview Error>

The user can check the execution status of the previous time of "Automatic Estimation Process" by clicking the button of "**Preview Error**" on the Monthly Process Screen.

<Exit>

To finish the operation of the Monthly process, the user should click the "Exit" button of on the Monthly Process Screen.

<The procedure's sequence of the program module for the "Monthly Process">

- Automatic Estimation
- Fixation and duplication of the monthly surveyed data

- Preparation of the Weight for every aggregation levels
- Index Calculation (PR, SP, IV, IR, LP, CU)
- Calculation of the Growth Rate of Indices
- Calculation of the Growth Rate of Ratio Index Elements for Commodity
- Calculation of the Growth Rate of Ratio Index Elements for Industry
- Up-dating of the "Batch Execution Record"
- Preparation of the "Link Master" for the next month

7. Operation work for the "Automatic Estimation Process"

The "Automatic Estimation" is one of the program modules in the "Monthly Process" (Preliminary Report Process, Revised Report Process and Yearly Report Process) as mentioned in above.

Therefore, as a part of the "Monthly Process", this process will be executed by the technical staff of the computer section in IIC who has registered as an "administrator" in the "User-ID Master".

On the system-screen of "Monthly Process", the functions are divided broadly into two groups (which are shown as the buttons).

The "Automatic Estimation" belongs to its first group (left side's button in each report's processes). And the main module of the second group is the "Index Calculation".

Therefore, if the result of the first step of the "Monthly Process" ("Automatic Estimation") has the improper data to calculate the indices, the user should modify the data before proceeding to the second step ("Index Calculation").

The process flow of the "Automatic Estimation" is indicated as follows,

(1) Process Flow of the Automatic Estimation

Data input from the questionnaires

↓

Input Check on the input screen

- Unfilled items
- Comparison with the figure of previous month (year).
- Continuity of the response
- Logical Balance…etc.

↓

Re-input for the modification (in order to cope with the warning message by above "Input Check")

↓

Execution of the Monthly Process ← in order to start the "Automatic Estimation Process"

↓

Automatic Estimation Process

① Calculation of the growth rate (by commodity) for automatic estimation

The system will calculate the growth rate for each commodity on the basis of the figures, which has actual values not only on this month but also the previous month.

* In the case that it contains any blanks or the estimated values on the data of this month or the previous month, that commodity will be excluded for the calculation basis of the growth rate. (*"0" is admitted as an actual value.)
* The result of the calculation (growth rate) will be saved in the temporary file until the next dead line of the monthly process. And then, it will be deleted and the new calculation result will be saved in the temporary file.

② Replacement to the estimated figures

The system will calculate the figures using the estimation method which was already set in the "Establishment Master" (by each establishment). The three kinds of the estimation method are available in this system.

a) To apply the figure of the same item on the previous month
b) To apply the figure of the same item on the same month of the previous year
c) To apply the figure that was multiplied by the growth rate of that commodity to the same item on the previous month

* Replaced data will have the attribute of "Estimated Value" after the monthly process in order to be distinguished from the actual values.
* In the case that it contains any blanks or the estimated values on the data of this month or the previous month, the data of that item will be a "blank" (Null) because this system is unable to calculate automatically by. And this problem will be recorded in the list of "Error Log Report" which will be printed out after the monthly process.

③ Adjustment of the logical balance after the "Automatic Estimation Process"

The system will revise the figure of "Inventory Qty" in order to keep the logical balance. (A detailed explanation is mentioned at 5. in the following chapter)

↓

Listing of the ”Error Log Report” → In the case that it contains any blanks or the estimated values on the data of this month or the previous month, the data of that item will be a “blank” (Null) because such figures are unable to calculate automatically. And this problem will be recorded in the list of “Error Log Report” which will be printed out after the monthly process.

↓

Listing of the ”Estimated Questionnaires” → un-received questionnaire by the dead line of the monthly process will be listed in order to recognize which establishment’s data was estimated automatically in the monthly process.

↓

Re-input for the modification * in order to modify the data based on the indication on the “Error Log Report”. The “Automatic Estimation” will be repeated if it is required.

↓

Duplication of the monthly data (Fixation of the data on the preliminary or revised report)

↓

Execution of the “Index Calculation Process” (It will be calculated by each aggregation level)

※ This process is separated from the “Automatic Estimation Process” in order to give a chance to modify the data before fixation of the monthly data. These monthly process should be executed by a technical staff of computer section in IIC.

(2) To handle the unreliable response from the establishment by applying the “Estimation Figure” for the missing data

If IIC can apply the estimated figure skillfully, it is not necessary to change the calculation base. But, IIC still should obtain the absolute figure from the establishment and revise the input value even after publishing the monthly report, in principal. It will be very critical matter if IIC keep remaining the “Estimated Figure” for a long time because the reliability of the indices that are published by IIC must turn to be very doubtful one.

The following methods have to be applied in considering above matters.

- Automatic Estimation

  If it is only 1 time that IIC is unable to obtain the questionnaire from the establishment for some reason, the "Automatic Estimation" will be applied by the system at the monthly process.

  However, the system will **refuse** the "Automatic Estimation" if the data of previous month is also an estimated figure.

  It is highly risky to create a new estimated figure (for the missing data of this month) from the old estimated figure (of the previous month's data). IIC should not use an "estimated figure that is made by an estimated figure". Needless to say, the index which is made of such values must be deviated from the actual trend.

- Manual Estimation

  In the case that IIC is unable to obtain the questionnaire from the same establishment for over 2 months, "Automatic Estimation" will not be executed. (A blank will be applied instead of the estimated figure.) So, if it is necessary to fill the values in order to keep the original calculation base, IIC can input an estimated figure that is calculated by the staff.

(3) The cases which are the target of "Error Log Report"

1) In case of the item's attribute of the previous month (or the same month of the previous year) is the **"U: Un-Produced"**

   ※Error Code = "N" + Item Type + Item Order No

2) In case of the item's attribute of the previous month (or the same month of the previous year) is the **"S: Production Stop"**

   ※Error Code = "S" + Item Type + Item Order No

3) In the case of the item's attribute on the previous month (or the same month of the previous year) is the **"Y: Estimated Figure"** (which was "X: Automatic Estimation" before the monthly process) **or "M: Manual Estimation"**

   ※Error Code = "X" + Item Type + Item Order No

4) When one of the attribute of the items that are relevant to the "**Logical Balance"** are set as the target of **"X: Automatic Estimation**".

(In the above case, every attributes of logical balance-items will be set as the "Y: Estimated Value" after the monthly process.)

※Error Code = "R" + Item Type + Item Order No

5) In case of there is **No Record** on the previous month (or the same month of the previous year)

※Error Code = "Z" + Item Type + Item Order No

6) In the case that the estimated result of "Month-end Inventory" is **Less than 0**.

※Error Code = "L" + Item Type + Item Order No

✧ If you change the estimation method from the ①to apply from the previous year to ②to apply from the previous month's data after the "Automatic Estimation Process", the error message "Un-Produced" that is mentioned above (1) will appear on the "Error Log Report", when IIC executed the "Automatic Estimation Process" again.

The system will create the dummy records of the "estimation questionnaire" during the 1st execution of the "Automatic Estimation Process", and all of the items' attributes are set as "Y: Estimated Figure". But, at the beginning step of the 2nd execution of the "Automatic Estimation Process", these attributes will be replaced with "X: Request for Auto-Estimation" because it should be re-estimated by the revised figures that was modified after the 1st execution of the "Automatic Estimation Process".

Therefore, the remaining dummy record will request for the "Automatic Estimation" because of the attributes' setting, and if the record of the previous year has the attribute of "U: Un-Produced", the error message of the case in "Un-Produced" on the "Error Log Report"

(4) Adjustment for keeping of the "Logical Balance"

In the case that ALL the items which are relevant to the logical balance such as "Production (Qty)" (including "Receipts"), "Shipment (Qty)" (including "Domestic Sales" and "Export" and "Others"), "Finished-goods Inventory"(both at the

beginning of the month and the end of the month) are not answered by the end of deadline for the monthly process, despite the efforts of IDSS to detect the missing data from the establishments, the system will execute the following tasks as an "automatic estimation process".

1) Firstly, the system will **supply the estimated values for all the items that are relevant to the logical balance** (such as "Production", "Shipment", "Inventory") by the defined method in "Establishment Master".

<Estimation Method>

① To apply the figure of the same item on the previous month
② To apply the figure of the same item on the same month of the previous year
③ To apply the figure that was multiplied by the growth rate of that commodity to the same item on the previous month

2) Secondly, the system will **replace the value of "Beginning-month Inventory" with "Month-end Inventory" of the previous month.**

3) Finally, in order to keep the logical balance, the system will **replace the value of "Month-end Inventory" with the estimated value** that was calculated by the following formula.

Month-end inventory = Production + Receipts + Beginning-month inventory – Total shipment (Domestic Sales + Export + Others)

(5) Exception on the scope of "Automatic Estimation"

1) The items which should **NOT** be applied the method of using the calculated figure which was multiplied by the **growth rate** of that commodity to the same figure on the previous month:

Capacity is not a changeable item thorough the all seasons and it is not relevant to the Growth Rate of each item.
Therefore, even if the establishment have been set the estimation code (method) in the "Establishment Master", the system will apply the method of copying from the previous data.

2) The items which are **out of the scope** for "Automatic Estimation":

Business Perception is impossible item for estimation.
Sales Plan is also impossible item for the estimation because this item should be a based on the policies.

3) Estimation for the **"Shipment Value":**

About the **Shipment Value,** the system will calculate by the following formula,

Unit Price × Growth Rate of unit price = Unit price of this month

4) Estimation for the **"Total"** of the shipment value:

The **"Total"** of the shipment value is NOT only a total amount of the shipment value for the listed commodities on the questionnaires, but also for the total amount of the factory (including the commodities that are not listed in the questionnaire).

<IDSS>

8. The manner to cope with the "Warning List" (after execution of the "Automatic Estimation Process")

As the "Warning List" will be printed out after execution of the "Automatic Estimation Process", the technical staff of the computer section in IIC should deliver the list to the IDSS staff in order to inform the problem of input data.
(The case study related to the "Warning List" is mentioned in the Attachment- 4: "How to respond to the "Warning List" that is printed out after the monthly process".)

9. The manner to revise the survey data in the database (after execution of the "Automatic Estimation Process")

(In order to respond to the "Warning List" please refer to the Attachment- 4: "How to respond to the "Warning List" that is printed out after the monthly process".)

When the revision work was finished, the IDSS staff should ask the technical staff of the computer section in IIC to execute the "Automatic Estimation Process" again.

(Therefore, the technical staff of the computer section in IIC should repeat from the process which is mentioned above [7. Operation work for the "Automatic Estimation Process"].)

<CS>

10. Operation work for the "Index Calculation Process"

The "Index Calculation Process" is one of the program modules in the "Monthly Process" (Preliminary Report Process, Revised Report Process and Yearly Report Process) as mentioned in above.

Therefore, as a part of the "Monthly Process", this process will be executed by the technical staff of the computer section in IIC who is registered as an "administrator" in the "User-ID Master".

On the system-screen of "Monthly Process", the functions are divided broadly into two groups (which are shown as the buttons).

The "Index Calculation Process" belongs to its second group (right side's button in each report's processes).

Therefore, if the result of the first step of the "Monthly Process" ("Automatic Estimation") finishes properly, the technical staff in IIC will proceed to the second step of the "Monthly Process" ("Index Calculation Process") to calculate the indices and make a duplication as of the time by clicking the button of "Index Calculation" on the "Batch Process Screen".

11. Process of the "final fixation of the data for the preliminary report/the revised report"

The "final fixation of the data for the preliminary report/the revised report" is one of the program modules in the second group of the "Monthly Process" (Preliminary Report Process, Revised Report Process and Yearly Report Process) as mentioned above.

Therefore, this action will be executed automatically after finishing the program module of "Index Calculation".

The last program module will make a duplication data file as of the time (for the preliminary report/the revised report of that month).

The duplicate data will be recorded in the "Past Record" file in order to be separated from the main file of the "Survey-data". (* "Survey-data" will be updated continuously until the "annual revision" will be done.)

<IIS/IDSS>

12. Output work

After finishing of the Monthly Process by the technical of the computer section, every staff in IIC can obtain the output-report from this system.

- **Proof lists of the actual values**

The IIS staff should print out following lists by this system and hand it to IDSS in order to check the differences between the input data and figures on the questionnaires.

The staff in charge of each industry has to confirm the summary figures of each commodity at least.

If the staff found out some discrepancies of the input data from the questionnaires, the staff should inform to the leader of IDSS and modify that data by “Input Screen” (modification-mode) in order to be effected in the next report.

If this modification is done before the monthly process of the revised report, it will be reflected in the revised report of that month. However, when the modification is required after monthly process of the revised report, it will be reflected only in the annual revision. (* In that case, it is too late to be reflected to the monthly report of that time.)

- **Dissemination form of the calculated indices**

The IIS staff should print out the following lists from this system to obtain the calculation results of the industrial indices for the monthly dissemination.

As each staff in IIS is responsible for a specific industry (commodity group), it is desirable they should obtain only the calculation results which are relevant to the respective area of responsibility, because if the user print out the calculation results of all the industries at one time, the processing time will be very long.

That reason why JICA STUDY TEAM prepared the “Client/Server System” is to avoid the over-concentration of the processing for input and output.

- **Reports for analysis**

The IIS staff should print out following lists by this system to obtain the analysis reports on the monthly statistics.

As each staff in IIS is responsible for a specific industry (commodity group), they should obtain only the analysis reports that are relevant to the respective area of responsibility jurisdiction, because if the user prints the analysis reports of all the industries at one time, the processing time will be very long.

Additionally, some analysis reports will contain too many data to be listed, because it should indicate many kinds of comparison data at the same time.

Therefore, the IIS staff should define the target-commodity for analysis before printing out the analysis reports.

13. Editing operation for the dissemination of the monthly report

- To find out the topics which corresponds with the results of analysis reports from the bundles of "Industrial Information Card"
  (1) Growth rate (commodity/industry/establishment)
  (2) Contribution degree/ratio (commodity/industry/establishment)
- To choose the proper topic to enrich the monthly report
- To input the explanation comments in the Excel sheet of the "General Explanation"

<CS>

14. Operation work for the "Yearly Report Process" (for Annual Revision)

When IIC reached at a year-end of the survey, it is necessary to carry on the "Yearly Report Process".

In order to replenish the absolute figure that could NOT be received from the establishment by the deadlines of each monthly process for the "Revised Report", IIC should **re-calculate** all the indices from the beginning of the survey year to the end, by executing the monthly process for the 12 months.

<A series of the result of "Monthly Process">

JAN	FEB	MAR	APR	MAY	…	NOV	DEC

< A series of the result of "Annual Revision"> (Re-calculation of the indices)

JAN	FEB	MAR	APR	MAY	…	NOV	DEC

On the operational work of this system, the procedures of the "Annual Revision" are almost same as the "Monthly Process".

The “Yearly Report Process” also should be executed by the technical staff of the computer section in IIC who is registered as an “administrator” in the “User-ID Master“ (the value of Jurisdiction table = "1").
The system will check the security level (user’s jurisdiction) from the User-ID. If the user is not an “administrator”, the Monthly Process (“batch process”) can not be executed.
If the user was recognized as the “administrator” by the system, the “Batch Process Screen” will open and the program will show the date of the past record of the “batch process” execution (in the year).
Then, the user should define the month of the year for starting the execution of the Yearly process.
In order to execute the “Yearly Process”, the user should click buttons on the “Yearly Report Process”.

<Yearly Report Process>

The “Yearly Report Process” has to be processed by each month from the beginning of the targeted year.
In this process, the program does not use the data file of “Past Record” that is a duplicated data as of each reported times but the file of “Survey-data” that is continuing to be updated by the time.
The program will check the status of the execution record for the Revised Report Process on the previous month that the user defined to start the monthly process. If the Revised Report Process on the previous month was not executed by the time, the system basically will not permit to execute the monthly process for the “Preliminary Report”. Therefore, the user should have done the monthly process of the Revised Report Process on the previous month by the time.

* However, the system has a loophole when IIC have to skip the normal step.
  By clicking the button of “Continue” that will be shown when the warning message is coming up at the end of the operation to define the term (month/year) of the monthly process, the administrator can proceed the monthly process even the Revised Report Process on the previous month had not been executed by that time.

<CS/IDSS/IIS>

15. System maintenance work

[1. Addition or revision of the survey-scope and the calculation basis]

(1) Establishment Master

The technical staff of the computer section in IIC should confirm with the IDSS the number of the targeted establishments of this survey once a month and keep correspondence between the number of records of the "Establishment Master".

The technical staff of the computer section in IIC also should take note to the "Checking sheet of the Master files" (please refer to the Attachment-5) at the same time.

If it has some discrepancies between the actual numbers which IDSS declared and the number of the records in the database of this master file.

- **Definition of the "continuous respondent" (basis of the index-calculation)**

IIC should distinguish the "continuous respondent" out of all the establishments of that are targeted of this survey's scope.

When IIC defines the "continuous respondent", it should be paid attention very much to choose it because the "continuous respondents" will be a basis of the index calculation.

As IDSS can distinguish which establishment is replying constantly from the collected questionnaires from the baseline period, they should convey the list of "continuous respondent" to let the technical staff in IIC set the flag of "continuous respondent" into the "Establishment Master".

(However, IIC should decide the adequate term to judge the "continuous respondent".)

- **Definition of the "method of automatic estimation" (by each establishment)**

At the MITI of Japan, the small company that has not a big share in the market can be applied the "estimated value" which is copied from the data of the previous month.

However, they are estimating the figures by manual, in case of missing the data from a major company that has a significant portion in the market.

After due consideration of the factors which is mentioned as above, IIC can select from three kinds of the estimation method as follows,

a) To apply the figure of the same item on the previous month
b) To apply the figure of the same item on the same month of the previous year
c) To apply the figure that was multiplied by the growth rate of that commodity to the same item on the previous month

When IIC define the estimation method by each establishment, the technical staff of the computer section in IIC should set the information into the "Establishment Master".

- **Definition of the "survey-scope" (by each establishment)**

When IIC decides to add the establishment into this survey, "survey-scope" has to be defined by the director of IIC at first.

At the present, two kinds of "survey-scope" are prepared in this system as follows,

➔ The scope of the "Pilot Survey" (377 establishments)
➔ The scope of the "Expansion Survey" (1,281 establishments)

(2) Survey-Scope Master

Currently, two kinds of "survey-scope" are prepared in this system as follows,

- Survey scope of the "tentative indicators" (pilot survey on the basis of around 400 establishments)
- Survey scope of the "referential indices" (expansion survey on the basis of around 1,000 establishments)

However, If IIC decided to add the newly "survey-scope", it should be set into the Master files in accordance with the following procedures,

① To add the new code and the name of newly "Survey Scope" into "Survey Scope Master".
② To define which establishments are relevant to the new "Survey Scope", and set the code of the "Survey Scope" to the establishment's record in the "Establishment Master".

(3) Class Master

The technical staff of the computer section in IIC should confirm with IDSS the number of targeted commodity groups (ISIC-6digits basis) and the kinds of questionnaires (ISIC-6digits basis) of this survey once a month and keep correspondence between the number of records of the "Class Master".

The technical staff of the computer section in IIC also should take note to the "Checking sheet of the Master files" (please refer to the Attachment-5) at the same time.

If it has some discrepancies between the actual numbers that IDSS declared and the number of the records in the database of this master file, the technical stuff in IIC should inform IDSS about this problem and print out the master file in order to refer to the actual questionnaires.

(4) Commodity Master

The technical staff of the computer section in IIC should confirm with IDSS the number of targeted commodities by each questionnaire of this survey once a month and keep correspondence between the number of records of the "Commodity Master".

The technical staff of the computer section in IIC also should take note to the "Checking sheet of the Master files" (please refer to the Attachment-5) at the same time.

If it has some discrepancies between the actual numbers that IDSS declared and the number of the records in the database of this master file, the technical stuff in IIC should inform IDSS about this problem and print out the master file in order to refer to the actual questionnaires.

- **Definition of the "Indexed Commodity" (by each index-item)**

IIC should distinguish the "commodity that should be indexed" ("index commodity") out of all the commodities of that are targeted of this survey's scope.

When IIC defines the "index commodity", it should be paid attention very much to choose it because the "index commodity" will be a basis of the index calculation.

As IIS can distinguish which commodity's figure is obtaining constantly from the collected questionnaires since the baseline period, they should hand

the list of “index commodity” to let the technical staff in IIC set the flag of “index commodity” into the “Commodity Master”.

Additionally, “index commodity” can be set by each index-item such as “Production”, “Shipment”, “Inventory”, “Inventory Ratio”, “Labor Productivity”, ”Capacity Utilization”. Therefore, IIC should recognize which item was obtained continuously from the collected questionnaires by each commodity in order to carry out the proper setting of “index commodity” into the “Commodity Master”.

- Indispensable items for each index items -

	Production QTY	Sales QTY	Export QTY	ME_ Inventory	Capacity	Worker	Hours	Days
Production IDX	○							
Shipment IDX		○	○					
Inventory IDX				○				
Inventory Ratio IDX		○	○	○				
Labor Productivity IDX	○					○	○	○
Capacity Utilization	○				○			

The IIC staff should refer to the above table to confirm which item is indispensable to be indexed on each kind of index.
(First of all, IIC should decide the adequate term to judge the “index commodity ”, anyway.)

- **Definition of the “capacity code” (by each commodity)**

In the case IIC defines to combine the columns of capacity’s item that belongs to some commodities into one, IDSS should hand the list of “combined commodities on the item of capacity” in to let the technical staff in IIC set the “capacity code” into the “Commodity Master”.
As the “capacity” is belongs to the “item type 6” on this system, the commodity code can be separated from the item of “production on the finished-goods’ commodity” (which is belongs to “item type 1”).
Therefore, the technical staff in IIC should set the commodity code of the “capacity” to the record of “production on the finished commodity” in the “Commodity Master” as the “Capacity Code”, in order to keep the linkage between the commodity code of “production on the finished commodity” and the commodity code of “Capacity”.

(However, IIC should not change the commodity code until the baseline period will be expired and take over to the new one. Otherwise, they have to input again all of the data by a revised pattern of the commodity code from the beginning.)

(5) Unit Master

The technical staff of the computer section in IIC should confirm for IDSS about the number of the targeted units in all questionnaires of this survey once a year, and keep correspondence to the number of the records of the “Unit Master”.
If it has some discrepancies between the actual numbers that IDSS declared and the number of the records in the database of this master file, the technical stuff in IIC should inform IDSS about this problem, and print out the master file in order to refer to the actual questionnaires.

<CS/IIS>

[2. Revision of the baseline period]

The following items are covering for not only the scope of **"[2. Revision of the baseline period]"** but also the scope of **"[1. Addition or revision of the survey-scope and the calculation basis]"**.

(6) Weight Master

In order to calculate the aggregated indices by the "weighted average-method", the weights should be prepared by each commodity.
At first, IIS should assign the person who is in charge of preparing the weights.
However, it is difficult to get the proper information about the weight of commodity level from outside because there is no institution that is publishing the industrial weight by commodity in Thailand.
Therefore, IIS have to estimate the weight of commodity level from the past result of this survey.
If all of IIC staff have difficulty in this estimation work, they should seek the advice from the long-term expert from JICA.

(7) Coefficient Masters (Link Coefficient, Deflator, Seasonal Adjustment)

This system has 3 kinds of coefficients as follows,

① Link Coefficient Master

In order to adjust the gap by the resultant figures that was calculated by the previous version of the base-period, the "Link-Coefficient" should be prepared on each commodity.
IIC have to estimate the Link-Coefficient of commodity level from the past result of this survey.
At first, IIS should assign the person who is in charge of preparing the Link-Coefficient.
If all of IIC staff have difficulty in this estimation work, they should seek the advice from the long-term expert from JICA.

- Image formula for preparation of the Link co-efficient –

* In estimating the values of Link co-efficient, please refer to the "Index Manual"

$$\text{Link co-efficient} = \boxed{\frac{2{,}747-535}{2{,}747}} = 0.8$$

$$\frac{\text{Absolute Figures of the Production (tn)} \times \boxed{\text{Link co-efficient}}}{\text{Absolute Figures of the Production (t0)}}$$

* tn = Survey month, t0 = Baseline period

② Deflator Master

If it is difficult to measure a certain commodity by quantity, IIC should use the "deflator" in order to make a meaningful index.

- For example, as the detail specification of the IC (Integrated Circuit) changes very quickly, it must have some problem to get accurate data by quantity. In such case, IIC should obtain the data by the amount value of money for all the items such as production, shipment and inventory instead of the quantity.
- However, IIC also should consider the price fluctuation during the survey term at the same time. To adjust the index with the price fluctuation such as inflation and deflation, we can use the "deflator".

- Image formula for applying the Deflator –

$$\frac{\text{Absolute Figures of the Production (tn)} \div \boxed{\text{Deflator}}}{\text{Absolute Figures of the Production (t0)}}$$

* tn = Survey month, t0 = Baseline period

When IIC will define a value of the deflator, the following indices can be the referential figures.

- Wholesales price index

  The wholesales price index is one of the appropriate figures to produce the deflator of the industrial statistics survey because our indices are relevant to the production sector near to the wholesale market (not

relevant to the retail trade).

However it is doubtful whether the wholesale price index has the information of entire commodity to be indexed on IIC's survey or not.

- Consumer price index

  Normally, the consumer price index can be expected as a figure that has much more detailed information for each commodity than the wholesale price index.

  IIC should find out the similar figure that is near to the targeted commodity on IIC's survey.

③ Seasonal Adjustment Master

In order to adjust the gap due to the seasonal factors, the "Seasonal Adjustment Master" should be prepared on each commodity by each month. IIC have to estimate the "Seasonal Factor" (values for seasonal adjustment) of each commodity level from the past indices of this survey (for over a year, at least).

At first, IIS should assign the person who is in charge of preparing the values of "Seasonal Factor". (*Please refer to the "(16) Connection with a packaged software of the seasonal adjustment", in order to estimate it automatically.)

If all of IIC staff have difficulty in this estimation work, they should seek the advice from the long-term expert from JICA.

- Image formula for applying the Seasonal Factor –

$$\frac{\text{Production Index (tn)} \times \text{Seasonal Factor}}{\text{Production Index (t0)}}$$

* tn = Survey month, t0 = Baseline period

* After executing the "monthly process", the system will copy the values on the above 3 kinds of master files to the next month's record of these master files as the initial setting for the next month, in order to avoid an insufficiency of algebra (variable) for the index calculation on the next month. Therefore, the user should not forget to update these data to the appropriate values before executing the monthly process on the next month.

* **"Link Coefficient"** and **"Deflator"** will be reflected on the index calculation for the normal series (original series) and saved into the database table named "Indices".
However, **"Seasonal Factor"** will not be reflected on the normal series of index-calculation but will be a basis of the index calculation for the seasonally adjusted index and saved into the database named "Seasonal Adjusted Indices".

<CS/IDSS/IIS>

(8) Baseline Period File (by each survey-scope)

In order to calculate the indices, the "Baseline period File" should be prepared by each commodity, which are targeted on this survey.

At first, IIC should define the period of the calculation basis.

IIC have to decide the method what kind of figures should be set in the "Baseline period File".

The JICA study team recommends the following method,

- To set the figures of the beginning period of the survey
- To set the average figures of the past result of the survey

(If all of IIC staff have difficulty in this estimation work, they should seek the advice from the long-term expert from JICA.)

Then, the technical staff in IIC have to prepare the "Baseline period File".

*In preparing the "Baseline period File" or the master files, please refer to the "ANNEX" document of "Volume-**IV**: Computer Operation Manual of the New Statistics Processing System".

<CS>

[3. System Administration]

(9) Deviation Range Master

In case that the input value deviates from the past record on previous month or the same month of the previous year, the system will display the warning message when the input work was finished.

"Deviation Range Master" defines the range of deviation of each checking functions such as mentioned in above "5. Input work for the modifications", by setting the percentage that is allowed by IIC as the deviation range for the comparison check.

The JICA Study Team defined all the deviation range for 10% as an initial setting.

IIC can modify the setting of deviation range by each ISIC.

Therefor, IIC should trace the trend of the change by each industry to find out the appropriate range of the deviation.

(10) User-ID Master

This system will control the functions that can be used by each user in order to prevent from the operational mistakes by the person who is not responsible for the operation.

Each user has a jurisdiction of the system functions that they can operate such as follows,

1. System Administrator (technical staff of the computer section in IIC)
2. IDSS (stuff who belongs to IDSS)
3. IIS (stuff who belongs to IIS)

Function	Condition	User
Input	**Before** Monthly Process (for Revised Report)	2. IDSS
	After Monthly Process (for Revised Report)	1. Administrator
Update	**Before** Monthly Process (for Revised Report)	2. IDSS
	After Monthly Process (for Revised Report)	1. Administrator/3.IIS
Delete	**Before** Monthly Process (for Revised Report)	2. IDSS
	After Monthly Process (for Revised Report)	1. Administrator
	Data of the Preliminary Report & Revised Report	1. Administrator
Execution of the Monthly Process	Execution of the Monthly Process (Automatic Estimation, Preparation of the Monthly Report)	1. Administrator

(11) The manner of data (files) back-up

The JICA Study Team recommends a periodical backup of the data into the other media like MO which are already prepared in this system.
And it also should keep outsiders from the office.
The local consultant who was developing this system will support this “Buck-Up” work if IIC will pay the cost of this support.
The service menu is as follows,

- MO will be required as a media for data preservation.
- The preservation period have to be more than a year.
- 2 diskettes will be required for data preservation each time, and it should be prepared in duplicates (Total 4 diskettes).
- The preservation process will be executed once a month (/week).
- The work of preservation into the media (MO) has to be done by IIC users.

If this work will be taken by the Open Software Engineering Co., Ltd, 2,480 Baht will be required. (In that case, confirmation works have to be done by IIC side.)

- Fee for preservation of the media will cost 500Baht/1 time
- Fee for the withdrawal (bringing out) of the preserved media will cost as follows,
  a. Regular Withdrawal (will be delivered after 1week)
     -> 400 baht/1time
  b. Express Withdrawal (will be delivered after 3days)
     -> 600 baht/1time

c. Super Express Withdrawal (will be delivered after 1day)

-> 1,000baht/1time

d. Immediate Withdrawal (within a day)

-> 2,000baht/1time

- Place of delivery will be the Office of IIC.
- Preservation Fee is 20Baht/item (month).
- Above mentioned media (MO) is not included (600Baht/1 diskette).

<CS/IDSS>

(12) The method of handling the irregular setting on master information of the establishments

If the user finds out the irregular setting of the master files related with the establishments or it's ISIC, it is not recommendable to change it until the next revision of the base-period or survey-scope. In order to change the setting of the master information of the establishments, the technical staff of the computer section in IIC should follow the following manners,

① To delete the unnecessary record of the establishments' data from the "Survey Data"
② To delete the all records of "Base Period File" and "Past Record"
③ To register the establishments' data again
④ To input again all the survey-data from the beginning month (starting period) of this survey
⑤ To remake the "Base Period File"
⑥ To execute the monthly process again from the beginning month (starting period) of this survey

<CS>

(13) The protection against the computer viruses

The JICA study team strongly recommends that IIC check every computer that is connected to the network system in order to detect presence of a computer virus at early stages.

At least, the technical staff in IIC should install the "Anti-Virus" software into every computer installed in IIC. Otherwise, there is some possibility that the main database on the server to be infected by computer virus and all of the data

will be destroyed. In that case, IIC have to input all of the surveyed data again from the beginning in order to continue the monthly survey.

Actually, the following viruses have been discovered in some computers of IIC and they had already exterminated in December 1999.

- "097M-Triscate.C"
- "W97A.Thus A."

In order to eliminate these viruses, the JICA Study Team recommends to use the following anti-virus software at the moment.

- "Norton Anti-Virus" (Auto-Protect)
- "McAfee VShield"

As these anti-virus software are capable of updating by downloading the latest version from their web sites, the technical staff in IIC should update all of the anti-virus software in IIC at the beginning of every month. (Mostly, these web sites are updated at the beginning of every month.)

And, the anti-virus software should be set to detect the computer viruses on the following situations,

- Every time when the users open the program files such as Excel, Word and Access…etc.
- Every time when the users open or copy a program file from the external media such as Floppy disk, MO, CD…etc.
- Every time when the users open or copy a program file from the external computers that are connected by the network including the server machines.

(14) Grading-up of the software

The JICA study team recommends that IIC will NOT change the version of each software currently used in this system. But if the time has come to change the version because of some reasons in the future, the technical staff in computer section in IIC should ask to confirm it to the following local consultant,

"Open Software Engineering Co., Ltd."
889 Thai CC Tower, 6th Fl., Rm.64,
South Sathorn Road, Tannawa,
Bangkok 10120, THAILAND
Tel: (662) 675-8487-90 Fax: (662) 675-8491

And, the software which are used in this system is listed as below,

- Microsoft Windows 98
- Microsoft Office 97
- Microsoft Windows-NT Ver.4.0
- Oracle 8.0

(15) Staff-training

<1. Given Training>

On 16th –17th of December 1999, the JICA study team held a role-playing type workshop for the main staff of IIC to learn about the basic system operation in accordance with this manual.

After that, as the system have been operated gradually in the practical work at IIC without a major problem, the Team had also held a series of **technical training courses for the system administrators at IIC** in order to transfer the maintenance technique for this system (including the operational training of ORACLE database) during from February 23 to March 9, 2000.

Further more, a series of **practical operation training courses for the IIC staff in general** had also held from February 28 to March 16, 2000 in order to give the correct understanding to operate this system.

<2. Additional Training>

As the fundamental training was provided sufficiently up to the end of March 2000, the IIC staff are expected to receive more training on IT (information technology) skills in order to operate and maintain the system stably and to expand the scope of the survey and the channels of data exchange in the near future.

The study team concludes that IIC still has deficiency in the following areas.

- In-house training system on operation procedures for new staff
- In-house reviewing system on the operation processes (in case of reorganization of IIC)

- Basic IT literacy (particularly in Excel, Access, OLE technique) among general staff in order to utilize digital data available from the computer system and the networks
- Advanced IT skills (particularly in Excel Macro Programming, Access application programming, Web based programming such as HTML etc.) in order to create more efficient office automation tools

Example)

- To make a publication support program which copies the summary data from the system output (Excel) to the dissemination form (Word) automatically
- To create the web-based object which publishes data (comes from the system) on the Web site of OIE

- The advanced techniques on database management(particularly in Oracle operation, SQL control etc.) in order to maintain this system stably and prepare revision of the base information or expansion of the scope on this survey

Preferably, IIC staff should receive supplementary training such as mentioned above, without taking a long interval.
However, as the required skills are different between general staff and technical staff, the additional training should be separated as follows.

a) **Practical Operation Training for general staff of IIC** (supplementary)

a-1) In-house training on the "Operational Procedures"

As the New Statistics Processing System is specially designed for IIC/MOI, naturally, there is no packaged training course for operating this system. Therefore, the Team strongly recommends IIC to develop the "in-house training system" covering the processes and manners that is taught by in-house staff, in order to prepare for education of new staff or the reorganization in IIC.

A general outline of the "in-house training" by IIC is summarized as follows:

Lecturer : Section leader (or the key staff who will be assigned by the leader)

Textbook : Volume I “Definition of the Functions on the New Statistics Processing Systems”

: Volume II “Operational Procedure Manual for the Industrial Statistics Processing Systems”

Period : A few days in April in every year
(Because that period is after the “annual revision” for the previous year.)

Program : ① Review of the “Operational Procedures” at present
② Discussion to handle the difference between the actual working processes and the written procedures in this Manual
③ Revision of the “Operational Procedure Manual” in order to fit the current circumstances
④ Enforcement of the “in-house training” in accordance with the Textbook, in order to unify the understandings among all the staff in IIC

- The operational procedures should be reviewed and revised in order to fit the situations and the conditions at that time because the current procedures must bring some inconvenience if IIC had some big change in their circumstances such as reorganization.

a-2) Packaged training on the “Basic IT literacy”

To effectively utilize the digital files (that are consist of Excel, Word, Access etc.) available from the computer system and the networks, general staff should learn IT skills.
As much of packaged training courses are held in the domestic market, IIC should receive the basic training such as below mentioned.

- Basic training for operating MS-Windows
- Basic training for using MS-Excel (with OLE control technique)
- Basic training for using MS-Word (with OLE control technique)
- Basic training for utilizing MS-Access

- Various software companies in cooperation with "Microsoft" open these training courses. (At least, Microsoft helps such training courses.)

b) **Technical Training for the System Administrators in IIC** (supplementary)

b-1) Advanced training on "IT skills"

To upgrade IT skills to prepare for more efficient and sophisticated office automation tools (programs) such as "Web based dissemination support program" which should be operated by the staff in IIC, the following training will be required.

- Advanced training for using MS-Excel with Macro programming
- Advanced training for creating the programs by MS-Access
- Technical training of HTML for Web based programming

b-2) Training on the "database management"

System administrators at IIC will be expected to update a considerable amount of vital information (mostly, in the master files) such as the baseline period, survey scope, target commodities, commodities to be indexed, targeted establishment, continuous respondent (calculation basis), commodity's weight.

Therefore, the following training is required to manage the database properly and skillfully.

- Advanced training for operating Oracle database
- Technical training course for SQL programming

*SQL = Programming Language for controlling the database and the batch process

Particularly, training on SQL is very important not only for database management but also for the functional enhancement of the batch process consisting of the "stored procedure" program.

b-3) Private training by "Open Software Engineering Co., Ltd."

At present (June 2000), in preparing for the case IIC requires the additional training for the system administrators in IIC, "Open Software Engineering Co., Ltd." can provide the private training courses as follows,

① Basic training course of SQL programming
② Practical (advanced) training course for SQL programming
③ Basic training course of ACCESS application programming
④ Practical (advanced) training course for ACCESS application programming

As “Open Software Engineering Co., Ltd.” knows this system in detail, they can give the practical training in accordance with the New Statistics Processing system.

(Please refer to the **Attachment-6**: “ The Tentative Quotation for the Maintenance of the New Statistics Process System ”.)

(16) Connection with a packaged software handling the seasonal adjustment

By incorporating the values of seasonal factor into the “Seasonal Adjustment Master”, this system calculates the seasonally adjusted index and to preserve the calculation result in the database table named “Seasonal Adjusted Indices”. (But, this system does not have the output format for indicating the seasonally adjusted indices at the moment. In utilizing that figures, it would be required to export for the Excel file or some other format from the database table directly.)

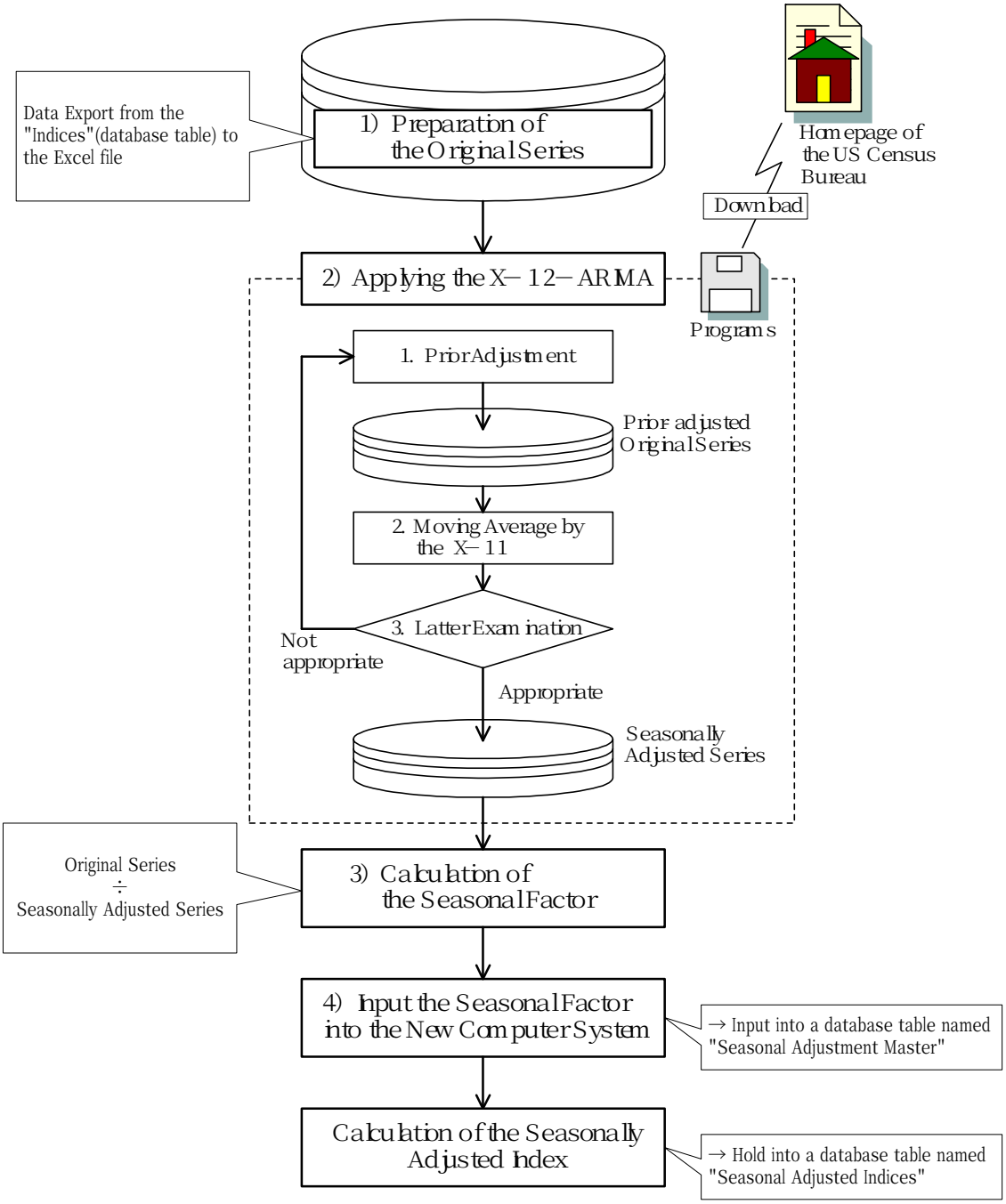
However, if IIC will decide to utilize the packaged software for preparing the values of the seasonal factor, the study team recommends the following program because it is so easy to obtain.

“X-12-ARIMA”

(It can be get from the Homepage of the Census Bureau in the United States of America by free.)

In case of connecting with the “X-12-ARIMA”, the system administrator in IIC should act on by the following process.

- Process of Connection with “X-12-ARIMA” -



Attachment-1

(“How to fill in the questionnaires?”)

Attachment-2

(“How to specify the attributes from the questionnaires?”)

The example and explanation below can be applied for all questionaires.

<INPUT SCREEN>

1. Finished goods (in Quantity)

Survey commodities		Code	Unit	Inventory at the beginning of the month		Production *1		Receipts *2		Shipment: Domestic Sales		Shipment: Export		Shipment: Others *3		Inventory at the end of the month		Monthly capacity *4
				A		B		C		D		E		F		G		H
Canned fish	**Tuna**	101	**ton**	100	***V***	100	***V***	120	***V***	145	***V***	200	***V***	140	***V***	50	***V***	
	Sardine	102	**ton**		***U***		***U***		***U***		***U***		***U***		***U***		***U***	
	Prawn	103	**ton**	100	***V***		***X***	120	***V***	140	***V***	180	***V***	120	***V***	40	***V***	
	Crab	104	**ton**		***X***		***X***		***X***		***X***		***X***		***X***		***X***	
	Baby clam P.S.	105	**ton**		***S***		***S***		***S***		***S***		***S***		***S***		***S***	
Other main products (Please specify)		---																

Total of the factory		---	---															

← CASE 1 :Actual Value

← CASE 2 :Un-production

← CASE 3 / CASE 4 :Auto / Manual Estimation

← CASE 5 :Permanent Production Stop

Note: **V. Actual Value**

U. Un-production

S. Permanent Production Stop

X. Automatic Estamation

Y. Estimated Value

M. Manual Estimation

How to specify the attributes from questionnaires?

CASE 1 is the normal case in which numeric values are filled in all columns of the same row. There is no need to select the attribute as the system will automatically turn to the attribute of "Actual Value" when these numbers are inputted.

CASE 2 indicates that the establishment has never produced this commodity (Canned Sardine) before and it is shown in the questionnaire by having a red line drawn across the entire row. In this case, it is no need to input the attribute as all columns are initially been set as "Un-Production".

CASE 3 and 4 happens when the establishment do not answer in one or all items of the commodity instead of its answer in the previous month. In this case, the input staff must select either "Manual Estimation or "Auto Estimation" attribute ; however, it is not recommended to use these attributes oftenly.

CASE 4 happens when the establishment which used to produce (Canned Baby clams) but decided to stop. For this case, P.S will be written in the co ty item column as above and show in the <Remarks> as "Production of Baby Cram is stopped." so the Productiuon Stop attribute or "S" must be inputted on the screen.

Please also refer to the -Case study for the "Permanent Production Stop"-.

Attachment-3

(“How to cope with the Warning Messages?”)

The following checking functions are prepared for validating the input values.

(1) <Input-Check by Commodity & Item>

① Data Type (Numeric/Character)

- In the case that input value has a wrong data-type
  (Ex. In the case that the user input the character to the input area that should be primarily input a numerical value such as “Production Qty” etc.)

② Comparison with the previous month / the same month of the previous year

- In the case that the input value deviates more than 10% from the figures of the previous month or the same month of the previous Year (The limitation of the range of deviation is able to be set to the Master file by each item)
  - ✧ This function will cover the checking for an inappropriate column.
  - ✧ In the case that the object month is in the starting year of the survey (1999), “Comparison with the same month of the previous year” does not execute.

(2) <Input-Check by each Commodities>

③ Unfilled items

- In the case that all the items such as “Production Qty”, “Shipment Qty”, “Finished goods-Inventory”, “Processing Capacity”, “Shipment Value”, “Sales plan” are not assembled, although one of these items was input (0 is admitted as an input-value).

④ Continuous Response

- In the case that the value of the survey month is not input although the same item of the previous month is already input in the past.

⑤ Logical Balance

- In the case that the “Month-end Inventory” of this month is not equal to the value which is calculated by following formula,

Month-end inventory = Production + Receipts + Month-end inventory (of the previous month) – Total shipment

⑥ Unit Price

- In the case that the input value deviates more than 10% from the value which is calculated by the following formula. (The limitation of the range of deviation can be set to the Master file by each item.)

Sales Plan(Value) ÷ Sales Qty

⑦ Fluctuation of Employees

- In the case that the "Total number of workers" deviates more than 10% from the figure of the previous month or the same month of the previous Year (The limitation of the range of deviation can be set to the Master file by each item.

⑧ Fluctuation of Operating days

- In the case that the "Average Working Days" is exceeded, the total days of the survey Month (Ex. January = 31days, February = 28days…etc.).

⑨ Fluctuation of Operating days compared with the previous month,

- In the case that the "Average Working Days" deviates more than 10% from the figure of the previous month or the same month of the previous Year (The limitation of the range of deviation is can be set to the Master file by each item.

If the system finds the invalid data that was entered by the user, a list of the "warning messages" will be indicated on the input screen as the input staff finished to input the data of a questionnaire filled out by an establishment.
The input staff should solve the problem which is mentioned on the "warning messages" to complete the data inputting. (If the "warning messages" has too many contents, the user can print it our by the [Print] button.)
(Please refer to the Attachment-3: "How to respond to the Warning Messages":Cksurvey.xls.)

(1) Full Input Error (Type1,2 Figures) <Code-No:I11>

If the above message is shown on the list of the "warning message", it corresponds to the case that was mentioned in above ③ "Un-filled".
Therefore, the input staff should take the following actions,

- To confirm that the every input value matches the respective entry of the questionnaire.
- To hand the questionnaire to the examination-staff of IDSS and request him/her to ask the establishment about the doubtful item (blank) in the questionnaire.
- To request the IDSS staff to estimate the tentative value of that item which is left blank if the staff is unable to get a proper answer from the establishment completely.
- To change the attribute of that item from “U: Un-produced” to “X: Automatic estimation” by the input screen (on the modification-mode) in order to request the system to estimate this value automatically if the IDSS staff is unable to estimate this value by hand. (In this case, the unfilled item will be filled by the estimated value after the “Monthly Process”.)
- To revise the input value if the IDSS can obtains able to obtain the actual value from the establishment after the monthly process (mainly, after the preliminary report), and the attribute of that item also should be revised to “V: Actual Value” from “Y: Estimated Value”

(2) Logical Balance Error <Code-No:B11>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ⑤ “Logical Balance”. Therefore, the input staff should take the following actions,

- To confirm that the every input value matches the respective items in the questionnaire.
- To hand the questionnaire to the examination-staff of IDSS and request him to ask the establishment about the doubtful figure in the questionnaire.
- To request IDSS staff to estimate the tentative value of that item if the staff is unable to obtain a proper answer from the establishment.
- To change the attribute of that item to “X: Automatic estimation” by the input screen (on the modification-mode) in order to request for the system to estimate this value automatically if the IDSS staff is unable to estimate this value by hand. (In this case, the unfilled item will be filled by the estimated value after the “Monthly Process”.)
- To revise the input value if the IDSS is able to obtain actual value of that item from the establishment after the monthly process (mainly, after the

preliminary report), and the attribute of that item also should be revised to "V: Actual Value" from "Y: Estimated Value"

(3) Operating Days Error (Labor Total) <Code-No:D31>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ⑧ "Fluctuation of Operating Days".

Therefore, the input staff should take the following actions,

- To confirm that the every input value matches the respective item in the questionnaire.
- To hand the questionnaire to the examination-staff of IDSS and request him to ask the establishment about the doubtful figure (over 31 days a month etc.) in the questionnaire.
- To request the IDSS staff to estimate the tentative value of that figure if the IDSS staff is unable to obtain an proper answer is unable to obtain an proper answer from the establishment.
- To delete the figure of the "Average working days", and change the attribute of that item to "X: Automatic estimation" by the input screen (on the modification-mode) in order to request for the system to estimate this value automatically if IDSS staff is unable to estimate this value by hand. (In this case, the item will be revised by the estimated value after the "Monthly Process".)
- To revise the input value if the IDSS is able to obtain the actual value of that item from the establishment after the monthly process (mainly, after the preliminary report), and the attribute of that item also should revised to "V: Actual Value" from "Y: Estimated Value"

(4) Unit Price Error (Sales, Export, Shipment Value) <Code-No:U21>

If the above message is shown on the list of the "warning message", it corresponds to the case that was mentioned in above ⑥ "Unit Price".

Therefore, the input staff should take the following actions,

- To confirm that the every input value matches the respective item in the questionnaire.

- To hand the questionnaire to the examination-staff of IDSS and request him to ask the establishment about the doubtful figure (Domestic Sales, Export, Shipment) in the questionnaire.
- To urge IDSS staff to estimate the tentative value of that figure if the IDSS staff is unable to obtain an proper answer from the establishment completely.
- To delete the figure of the “Sales plan”, and change the attribute of that item to “X: Automatic estimation” by the input screen (on the modification-mode) in order to request for the system to estimate this value automatically if IDSS staff is unable to estimate this value by hand. (In this case, the item will be revised by the estimated value after the “Monthly Process”.)
- To revise the input value if the IDSS is able to obtain the actual value of that item from the establishment after the monthly process (mainly, after the preliminary report), and the attribute of that item also should revised to “V: Actual Value” from “Y: Estimated Value”

(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should take the following actions,

- To confirm that the every input value matches the respective item in the questionnaire. (but, the deviation range is not always 10%. So, the input staff should confirm the current deviation range of this item to the technical staff in the computer section in IIC at first because the technical staff in the computer section in IIC can refer the “Deviation Range Master”.)
- To check the data of that item on the previous month data on the input screen (modification-mode) or the actual questionnaire, and confirm that both of the same item of this month and previous month deviate more than 10% or not.
- To hand the questionnaire to the examination-staff of IDSS and request him to ask the establishment about the doubtful figure in the questionnaire.
- * If the IDSS staff judge the figure is correct through the asking for the establishment, the **following procedures will NOT be required**.

- To request IDSS staff to estimate the tentative value of that figure if the IDSS staff is unable to obtain an proper answer from the establishment.
- To delete the figure of that item, and change the attribute of that item to "X: Automatic estimation" by the input screen (on the modification-mode) in order to request for the system to estimate this value automatically if IDSS staff is unable to estimate this value by hand. (In this case, the item will be revised by the estimated value after the "Monthly Process".)
- To revise the input value if the IDSS is able to obtain the actual value of that item from the establishment after the monthly process (mainly, after the preliminary report), and the attribute of that item also should revised to "V: Actual Value" from "Y: Estimated Value"

(6) Big Difference from Pre Month (Production QTY) <Code-No:M12>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the previous month".

Therefore, the input staff should follow the same procedures as the above explanation of "(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>".

(7) Big Difference from Pre Month (Receipts) <Code-No:M13>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the previous month".

Therefore, the input staff should following the same procedures as the above explanation of "(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>".

(8) Big Difference from Pre Month (Domestic Sales) <Code-No:M14>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the previous month".

Therefore, the input staff should following the same procedures as the above explanation of "(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>".

(9) Big Difference from Pre Month (Export) <Code-No:M15>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(10) Big Difference from Pre Month (Other Sales) <Code-No:M16>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(11) Big Difference from Pre Month (ME_Inventory) <Code-No:M17>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(12) Big Difference from Pre Month (Shipment Value) <Code-No:M21>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(13) Big Difference from Pre Month (Sales Plan) <Code-No:M22>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(14) Big Difference from Pre Month (Unit Price) <Code-No:M23>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(15) Big Difference from Pre Month (Labor Total of Labor Input) <Code-No:M31>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(16) Big Difference from Pre Month (Labor SC of Labor Input) <Code-No:M32>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(17) Big Difference from Pre Month (Labor Total of Labor Hours) <Code-No:M33>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(18) Big Difference from Pre Month (Labor Total of Labor Days) <Code-No:M34>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(19) Big Difference from Pre Month (RwMt_MEInventoryValue) <Code-No:M42>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(20) Big Difference from Pre Month (RwMt_MEInventory) <Code-No:M41>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the previous month”.

Therefore, the input staff should following the same procedures as the above explanation of “(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>”.

(21) Big Difference from Pre Month (Capacity) <Code-No:M61>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the previous month".

Therefore, the input staff should following the same procedures as the above explanation of "(5) Big Difference from Pre Month (BM_Inventory) <Code-No:M11>".

(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the same month of the previous year".

Therefore, the input staff should take the following actions,

- To confirm that the every input value matches the respective item in the questionnaire.
- To check the data of that item on the previous month data on the input screen (modification-mode) or the actual questionnaire, and confirm that both of the same item of this month and the same month of the previous year deviates more than 10% or not. (but, the deviation range is not always 10%. So, the input staff should confirm the current deviation range of this item to the technical staff in the computer section in IIC at first because the technical staff in the computer section in IIC can refer the "Deviation Range Master".)
- To hand the questionnaire to the examination-staff in IDSS and request them to ask the establishment about the doubtful figure in the questionnaire.
- * If the IDSS staff judge the figure is correct through the asking for the establishment, the **following procedures will NOT be required**.
- To urge IDSS staff to estimate the tentative value of that figure if the IDSS staff is unable to obtain an proper answer from the establishment.
- To delete the figure of that item, and change the attribute of that item to "X: Automatic estimation" by the input screen (on the modification-mode) in order to request for the system to estimate this value automatically if IDSS staff is unable to estimate this value by hand. (In this case, the item will be revised by the estimated value after the "Monthly Process".)

- To revise the input value if the IDSS is able to obtain the actual value of that item from the establishment after the monthly process (mainly, after the preliminary report), and the attribute of that item also should revised to "V: Actual Value" from "Y: Estimated Value"

(23) Big Difference from Pre Year (Production QTY) <Code-No:Y12>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the same month of the previous year".
Therefore, the input staff should following the same procedures as the above explanation of "(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>".

(24) Big Difference from Pre Year (Receipts) <Code-No:Y13>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the same month of the previous year".
Therefore, the input staff should following the same procedures as the above explanation of "(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>".

(25) Big Difference from Pre Year (Domestic Sales) <Code-No:Y14>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the same month of the previous year".
Therefore, the input staff should following the same procedures as the above explanation of "(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>".

(26) Big Difference from Pre Year (Export) <Code-No:Y15>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the same month of the previous year".

Therefore, the input staff should following the same procedures as the above explanation of "(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>".

(27) Big Difference from Pre Year (Others Sales) <Code-No:Y16>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the same month of the previous year".
Therefore, the input staff should following the same procedures as the above explanation of "(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>".

(28) Big Difference from Pre Year (ME_Inventory) <Code-No:Y17>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the same month of the previous year".
Therefore, the input staff should following the same procedures as the above explanation of "(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>".

(29) Big Difference from Pre Year (Shipment Value) <Code-No:Y21>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the same month of the previous year".
Therefore, the input staff should following the same procedures as the above explanation of "(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>".

(30) Big Difference from Pre Year (Sales Plan) <Code-No:Y22>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ② "Comparison with the same month of the previous year".
Therefore, the input staff should following the same procedures as the above explanation of "(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>".

(31) Big Difference from Pre Year (Unit Price) <Code-No:Y23>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the same month of the previous year”.

Therefore, the input staff should following the same procedures as the above explanation of “(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>”.

(32) Big Difference from Pre Year (Total Labor Input) <Code-No:Y31>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the same month of the previous year”.

Therefore, the input staff should following the same procedures as the above explanation of “(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>”.

(33) Big Difference from Pre Year (SC of Labor Input) <Code-No:Y32>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the same month of the previous year”.

Therefore, the input staff should following the same procedures as the above explanation of “(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>”.

(34) Big Difference from Pre Year (Labor Hours) <Code-No:Y33>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the same month of the previous year”.

Therefore, the input staff should following the same procedures as the above explanation of “(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>”.

(35) Big Difference from Pre Year (Labor Days) <Code-No:Y34>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the same month of the previous year”.

Therefore, the input staff should following the same procedures as the above explanation of “(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>”.

(36) Big Difference from Pre Year (RwMt_MEInventory) <Code-No:Y41>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the same month of the previous year”.

Therefore, the input staff should following the same procedures as the above explanation of “(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>”.

(37) Big Difference from Pre Year (RwMt_MEInv.Val) <Code-No:Y42>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the same month of the previous year”.

Therefore, the input staff should following the same procedures as the above explanation of “(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>”.

(38) Big Difference from Pre Year (Capacity) <Code-No:Y61>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ② “Comparison with the same month of the previous year”.

Therefore, the input staff should following the same procedures as the above explanation of “(22) Big Difference from Pre Year (BM_Inventory) <Code-No:Y11>”.

(39) Continuous Response Error (BM_Inventory) <Code-No:C11>

If the above message is shown on the list of the "warning message", it corresponds with the case that was mentioned in above ④ "Continuous Response".

Therefore, the input staff should take the following actions,

- To confirm that the every input value matches the respective item in the questionnaire. (but, the deviation range is not always 10%. So, the input staff should confirm the current deviation range of this item to the technical staff in the computer section in IIC at first because the technical staff in the computer section in IIC can refer the "Deviation Range Master".)
- To check the data of that item on the previous month data by the input screen (modification-mode) or the actual questionnaire, and confirm that both of the same item of this month and previous month deviates more than 10% or not.
- To hand the questionnaire to the examination-staff in IDSS and request them to ask the establishment about the doubtful figure in the questionnaire.
- * If the IDSS staff judge the figure is correct through the asking for the establishment, the **following procedures will NOT be required**.
- To request IDSS staff to estimate the tentative value of that figure if the IDSS staff is unable to obtain an proper answer from the establishment completely.
- To delete the figure of that item, and change the attribute of that item to "X: Automatic estimation" by the input screen (on the modification-mode) in order to request for the system to estimate this value automatically if IDSS staff is unable to estimate this value by hand. (In this case, the item will be revised by the estimated value after the "Monthly Process".)
- To revise the input value if the IDSS is able to obtain the actual value of that item from the establishment after the monthly process (mainly, after the preliminary report), and the attribute of that item also should revised to "V: Actual Value" from "Y: Estimated Value"

(40) Continuous Response Error (Production QTY) <Code-No:C12>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(41) Continuous Response Error (Receipts) <Code-No:C13>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(42) Continuous Response Error (Domestic Sales) <Code-No:C14>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(43) Continuous Response Error (Export) <Code-No:C15>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(44) Continuous Response Error (Others Sales) <Code-No:C16>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(45) Continuous Response Error (ME_Inventory) <Code-No:C17>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(46) Continuous Response Error (Shipment Value) <Code-No:C21>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(47) Continuous Response Error (Sales Plan) <Code-No:C22>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(48) Continuous Response Error (Labor Total) <Code-No:C31>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(49) Continuous Response Error (Labor SC) <Code-No:C32>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(50) Continuous Response Error (Rw_Mt_MEInventory) <Code-No:C41>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(51) Continuous Response Error (RwMt_MEInventoryValue) <Code-No:C42>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

(52) Continuous Response Error (Capacity) <Code-No:C61>

If the above message is shown on the list of the “warning message”, it corresponds with the case that was mentioned in above ④ “Continuous Response”.

Therefore, the input staff should following the same procedures as the above explanation of “(39) Continuous Response Error (BM_Inventory) <Code-No:C11>”.

Warning Log Report

ISIC 151210

YEAR 2000 January

Plant Registration No. 3-006(01)-001/22กท

Item type	Commodity Code	Commodity Name	Message Code	Message Name
1	010	Canned fish tuna	M11	Big Difference from Pre Month(BM_Inventory
1	010	Canned fish tuna	M12	Big Difference from Pre Month(Production QT
1	010	Canned fish tuna	M15	Big Difference from Pre Month(Export)
1	010	Canned fish tuna	M17	Big Difference from Pre Month(ME_Inventory)
1	010	Canned fish tuna	Y12	Big Difference from Pre Year(Production QTY
1	010	Canned fish tuna	Y14	Big Difference from Pre Year(Domestic Sales)
1	010	Canned fish tuna	Y15	Big Difference from Pre Year(Export)
1	010	Canned fish tuna	Y17	Big Difference from Pre Year(ME_Inventory)
1	020	Canned fish sardine	M11	Big Difference from Pre Month(BM_Inventory
1	020	Canned fish sardine	M12	Big Difference from Pre Month(Production QT
1	020	Canned fish sardine	M14	Big Difference from Pre Month(Domestic Sales
1	020	Canned fish sardine	M15	Big Difference from Pre Month(Export)
1	020	Canned fish sardine	M17	Big Difference from Pre Month(ME_Inventory)
1	020	Canned fish sardine	Y12	Big Difference from Pre Year(Production QTY
1	020	Canned fish sardine	Y14	Big Difference from Pre Year(Domestic Sales)
1	020	Canned fish sardine	Y15	Big Difference from Pre Year(Export)
1	020	Canned fish sardine	Y17	Big Difference from Pre Year(ME_Inventory)

Attachment-4

(“How to respond to the Warning List
that is printed out after the monthly process?”)

1. General logic of "Automatic Estimation Process"

In the case that all the items which are relevant to the logical balance such as "Production (Qty)" (including "Receipts"), "Shipment (Qty)" (including "Domestic Sales" and "Export" and "Others"), "Finished-goods Inventory"(both at the beginning of the month and the end of the month) are not assembled by the end of deadline for the monthly process, despite the efforts of IDSS to recover the missing data from the establishments, the system will execute the following tasks as an "automatic estimation process".

(1) First of all, the system will **supply the estimated-values for all the items that are relevant to the logical balance** (such as "Production", "Shipment", "Inventory") by the defined method in "Establishment Master".

<Estimation Method>

1) To apply the figure of the same item on the previous month
2) To apply the figure of the same item on the same month of the previous year
3) To apply the figure that was multiplied by the growth rate of that commodity to the same item on the previous month

(2) Secondly, the system will **replace the value of "Beginning-month Inventory" with "Month-end Inventory" of the previous month**.

(3) Finally, in order to keep the logical balance, the system will **replace the value of "Month-end Inventory" with the estimated value** that was calculated by the following formula.

Month-end inventory = Production + Receipts + Beginning-month inventory – Total shipment (Domestic Sales + Export + Others)

2. Exception of the scope of the "Automatic Estimation"

(1) The items which should **NOT** be applied the method of using the calculated figure which was multiplied by the **growth rate** of that commodity to the same figure on the previous month:

Capacity is not a changeable item thorough the all season and it is not relevant to the Growth Rate of each item.
Therefore, even if the establishment has been set the estimation code (method) in the "Establishment Master", the system will apply the method of copying from the previous data.

(2) The items which are **out of the scope** for "Automatic Estimation":

Business Perception is impossible item for estimation.
Sales Plan is also impossible item to prohibit the estimation because this item should be a based on the policies.

(3) Estimation for the "**Shipment Value**":

About the **Shipment Value**, the system will calculate by the following formula,

Unit Price × Growth Rate of unit price = Unit price of this month

(4) Estimation for the "**Total**" of the shipment value:

The "**Total**" of the shipment value is NOT only a total amount of the shipment value for the listed commodities on the questionnaires, but also for the total amount of the factory (including the commodities that are not listed in the questionnaire).

3. The cases which are the target of "Warning List"

(1) In case of the item's attribute of the previous month (or the same month of the previous year) is the "**U: Un-produced**"

(2) In case of the item's attribute of the previous month (or the same month of the previous year) is the "**S: Production Stop**"

(3) In case of the item's attribute on the previous month (or the same month of the previous year) is the "**Y: Estimated Value**" (which was "X: Automatic Estimation" before the monthly process) **or** "**M: Manual Estimation**"

(4) In the case one of the attribute of the items that are relevant to the **logical balance** are set as the target of "**X: Automatic Estimation**".

(In the above case, every attributes of logical balance-items will be set as the "Y: Estimated Value" after the monthly process.)

(5) In case of the item's attribute of the previous month (or the same month of the previous year) is "**S: Production Stop**"

4. To handle the unreliable response from the establishment by applying the "Estimation Figure" for the missing data

If IIC can apply the estimated figures skillfully, it is not necessary to change the calculation base. But, IIC still should obtain the absolute figure from the establishment and revise the input value even after publishing the monthly report, in principal. It will be very critical matter if IIC keep remaining the "Estimated Figure" for a long time because the reliability of the indices that are published by IIC must turn to be very doubtful one.
The following methods have to be applied in considering above matters.

- Automatic Estimation
  If it is only one time that IIC is unable to obtain questionnaire from the establishment for some reason, the "Automatic Estimation" will be applied by the system at the monthly process.

However, the system will **refuse** the "Automatic Estimation" if the data of previous month is also an estimated figure.

It is highly risky to create a new estimated figure (for the missing data of this month) from the old estimated figure (of the previous month's data). IIC should not use an "estimated figure that is made by an estimated figure". Needless to say, the index that is made of such values must be deviated from the actual trend.

- Manual Estimation

  In the case that IIC is unable to obtain questionnaire from the same establishment for over 2 months, "Automatic Estimation" will not be executed. (A blank will be applied instead of the estimated figure.) So, if it is necessary to fill the values in order to keep the original calculation base, IIC can input an estimated figure that is calculated by the staff.

※The P.I.C.(person in charge) of relevant ISIC should prepare the figure of "Manual Estimation".

Attachment-5

(“Checking Sheet of the Maser Files”)

[Checking Sheet of the Master Files]

		Class Master		Commodity Master		Establishment Master	
		IDSS	Database	IDSS	Database	IDSS	Database
2000	JAN	57	57	724	724	1269	1269
	FEB						
	MAR						
	APR						
	MAY						
	JUN						
	JUL						
	AUG						
	SEP						
	OCT						
	NOV						
	DEC						
2001	JAN						
	FEB						
	MAR						
	APR						
	MAY						
	JUN						
	JUL						
	AUG						
	SEP						
	OCT						
	NOV						
	DEC						

*The number that is indicated on the above table is just a sample.

Attachment-6

("The Tentative Quotation for the Maintenance
of the New Statistics Process System")

17-Nov-99

The Tentative Quotation for the Maintenance of the New Statistics Process System

Open Software Engineering Co.,Ltd.

1. The Maintenance Fee of the New Statistics Process System

(1) Annual Maintenance Fee (including a small revision)

435,000 Baht (15% of the cost original system development)

(2) Monthly Maintenance Fee (including a small revision)

37,750 Baht/Month (1day)

(3) Fee of Full Time Support

90,000 Baht/Month

(4) Fee of One Pointed Support

4,500 Baht/Day

2. Fee of Additional Development to the New Statistics Process System

(1) Index Calculation

About 5,250 Baht/Day (5-10 days will be required)

(2) Output Format

5,250 Baht/Day (About 3 days will be required)

(3) Additional modification to the Input Screen

5,250 Baht/Day (About 3 days will be required)

(4) Additional modification to the Checking Functions

Additional Quotation will be required

(5) Additional modification to the Monthly Process

Additional Quotation will be required

(6) Additional modification to the Data-Transition to the Internet Web

Additional Quotation will be required

3. Fee for the Re-setting of Computers and peripheral equipment including the network

(1) H/W （including Network）

	Re-setting	Additional Setting
Server	2 hour/Unit	1 hour/Unit
	1,400 Baht	5,250 Baht
Client	1 hour/Unit	3.5 hour/Unit
	700 Baht	2,450 Baht

(2) S/W (Install, DB re-setting)

	Re-setting	Additional Setting
Server	2 hour/Unit	4 hour/Unit
	1,400 Baht	21,000 Baht
Client	1 hour/Unit	3.5 hour/Unit
	700 Baht	2,450 Baht

4. Fee for the Preservation of the Survey Data

- MO will be required as a media for the data preservation.
- The preservation period have to be more than a year.
- 2 diskettes will be required for the data preservation each time, and it should be prepared in duplicates (Total 4 diskettes).
- The preservation process will be executed once a month (/week).
- The work of preservation into the media (MO) has to be done by IIC users.
  If this work will be taken by the Open Software Engineering Co., Ltd, 2,480Baht will be required. (In that case, confirmation work have to be done by IIC side.)
- Fee for the preservation of the media will cost 500Baht/1 time
- Fee for the withdrawal (bringing out) of the preserved media will cost as follows,
  a. Regular Withdrawal (will be delivered after 1week) -> 400 baht/1 time
  b. Express Withdrawal (will be delivered after 3days) -> 600 baht/1 time
  c. Super Express Withdrawal (will be delivered after 1day) -> 1,000 baht/1 time
  d. Immediate Withdrawal (within a day) -> 2,000 baht/1 time
- Place of delivery will be the Office of IIC.

- Preservation Fee is 20Baht/item (month).
- Above mentioned media (MO) is not included（600 Baht/1 diskette).

5. Fee for the Training of the Programming to the Computer System Stuff of IIC

The training courses are prepared as follows,

	(1)	(2)	(3)	(4)	(5)	(6)
SQL Basic	5,250 Baht/a day					
Practical	5.250B/day	4H/2,800B	—	2H/1,400B	2.5H/1,750B	-
Access Basic	7,875 Baht/1.5day					
Practical	-	3H/2,100B	4H/2,800B	-	-	-

* Each numbers in above table such as (1)-(6) are corresponded with the item numbers that are mentioned in above [２． Fee of Additional Development to the New Statistics Process System].
* 3-5days will be required for the preparation period.

Operation Procedure Manual
of the Preliminary Statistics Processing System

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<Work Flow of the IDSS>

1.Examination Work
(Tel & Confirmation)

- Check for the unfilled items
- Deviation check from the previous month/Year's value
- Check for the continuity of response by each commodities
- Check for the logical balance……etc.

↓

2.Input of the Surveyed Data → Access System

↓

3.Estimation of the Collection Rate on 377 establishment-basis (Daily Work)

Dead-line of the Monthly Process (Preliminary Report／Revised Report)

4.Estimation of the Collection Rate on 377 establishment-basis (Monthly Work)

↓

※In the case IIS request for IDSS to remake the Extracted Data, it's necessary to do any works again from this process.

5.Output of the Actual Value's list → on 377establishments

↓

6.Extraction of the 265 establishments' data out of the data of 377 basis

→ Deletion of the un-targeted establishments' data from the following files.

- Survey Data
- Establishment Master
- Commodity Master

↓

7.Estimation of the Collection Rate on 265 establishment-basis (Monthly Work)

↓

8.Preservation of a duplication of the data file of 265 establishments

(To fix the data of preliminary report / revised report)

↓

9.Output of the Actual Value's list → on 265establishments

↓

10.Data Pass to IIS about 265 establishments' data (by Access-mdb file)

＜Work Flow of the IIS＞

↓

11.To receive the data of 265 establishments from IDSS

→ Access system in IIS will receive the data by Access-mdb file from IDSS

↓

12.Creation of the “Extracted Data” file (Excel)

（Extraction of the raw data to Excel）

※As this file will be created in the folder of “C:¥Extracted Data” which exists in the user’s computer, the file will be required to be moved to each folders of “Monthly Result by Industry” in the server. (The folders’ name of “Monthly Result by Industry” is regulated as “ISIC＋Year + Month” such like ”1512APR1999”.)

↓

13.Execution of the Index-Macro（Excel）

（Monthly process for creating the index calculation file.）

※Each “Extracted Data” in the folders of “Monthly Result by Industry” (which is located in the server) have to be copied to the folder of “Extracted Data” in each IIS-user’s computers, and then, the user can create the “Result File” (index calculation file) by executing the “Index Macro” which exists in the same folder.

The name of ”Result File” is regulated as “ISIC＋Year + Month” such like “1512199907.xls”.

The “Result File” will be printed out at the need arises.

↓

14.The confirmation of the figures in the "Result File"

The contents of the "Result File" (index calculation sheet) is mentioned as follows,

<Raw Data Sheet>

- Actual Values of Previous Month
  : Production, Shipment (Qty/Value) , Inventory, Labor input, Raw-material inventory (Qty/Value), Business perception, Unit price and the values of base-period etc.
- Actual Values of Survey Month
  : Production, Shipment (Qty/Value) ,Inventory, Labor input, Raw-material inventory (Qty/Value), Business perception, Unit price and the values of base-period etc.

<Index Calculation Sheet> (by the total value-added method)

(1)Production Index : by establishment, by commodity, by industry
(2)Shipment Index : by establishment, by commodity, by industry
(3)Inventory Index : by establishment, by commodity, by industry
(4)Inventory Ratio Index : by establishment, by commodity, by industry
(5)Raw-Material Inventory Ratio Index : by establishment, by commodity, by industry
(6)Labor Productivity Index : by establishment, by commodity, by industry
(7)Capacity Utilization Index : by establishment, by commodity, by industry
(8)Business perception Index : by establishment, by commodity, by industry

※However, above (6) & (8) are of no practical use because of containing the doubtful answer in the questionnaires at the moment.

↓

15.To feed back to IDSS

(To ask IDSS to confirm the data again in case of finding the abnormal figures)

In the case that IIS stuff find out the doubtful figures in the "Result File", the fact have to be announced to the IDSS immediately in order to let them confirm the figure in the questionnaire again or ask it to the establishment.

↓

16.Request for IDSS to remake the “Extracted Data”

(In the case it has abnormal figures)

IIS should request for IDSS to revise the data by Input system (Access) if it become clear that the data have to be modified through the checking work in IIS.

The technical stuff in the computer section who is in charge of controlling of the database (in Access system) should take note the history of revision if the data was modified. (date, name of the industry, establishment, item, the person who request the modification should be written in that note.)

When the modification work was finished, the process has to be repeated from 5.Output of the Actual Value’s list.

↓

17.Execution of the ”Index Macro” program

(Creation of the monthly index calculation file by industry)

※ Each “Extracted Data” in the folders of “Monthly Result by Industry” (which is located in the server) have to be copied to the folder of ”Extracted Data” in each IIS-user’s computers, and then, the user can create the ”Result File” (index calculation file) by executing the ”Index Macro” which exists in the same folder.

The name of ”Result File” is regulated as “ISIC－Year + Month” such like ”1512199907.xls”.

The ”Result File” will be printed out at the need arises.

↓

18.Execution of the ”Graph Creation Macro”(time-series list)

(Creation of the time-series index graph by industry)

※As same as the above, the IIC user can create the file of ”Time-series graph” by executing the ”Graph Creation Macro” which exists in the same folder.

As the files of ”Graph Creation Macro” are prepared by each ISIC, the name of this Macro program file is regulated as “gen + ISIC－XXXX” such like ” gen1512xxxx.xls”.

(The user can select the target period on the screen when they start to execute this program.)
The ”Time-series graph” will be printed out at the need arises.

↓

19. Preservation of the ” Time-series graph”(time-series list)

(Duplication of the time-series index graph by industry)

※Each “Time-series graph” have to be copied to the folders of “Monthly Result by Industry” (which is located in the server).
As the file name of the ” Time-series graph” is regulated as “gen+ISIC＋Year + Month” such like ”gen1512199907.xls”, the user should save this file to the proper folder of “Monthly Result by Industry” (which is located in the server).

↓

20.Preparation of the comments for analysis (into the Excel file of “Time-series Graph”)

↓

21.Dissemination

※How degree will the system-output include in the document of dissemination is depend on the judgement by IIC.

※This document does NOT mention about entire process of the survey (including the collection of the questionnaire, examination, editing, and dissemination) because it should be stated about only the operation-process of the preliminary system of industrial statistics processing.

<Computer Operation Manual >

Volume III

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Annex 1 Technical Procedure Manual

1. Initial Desk Top Screen

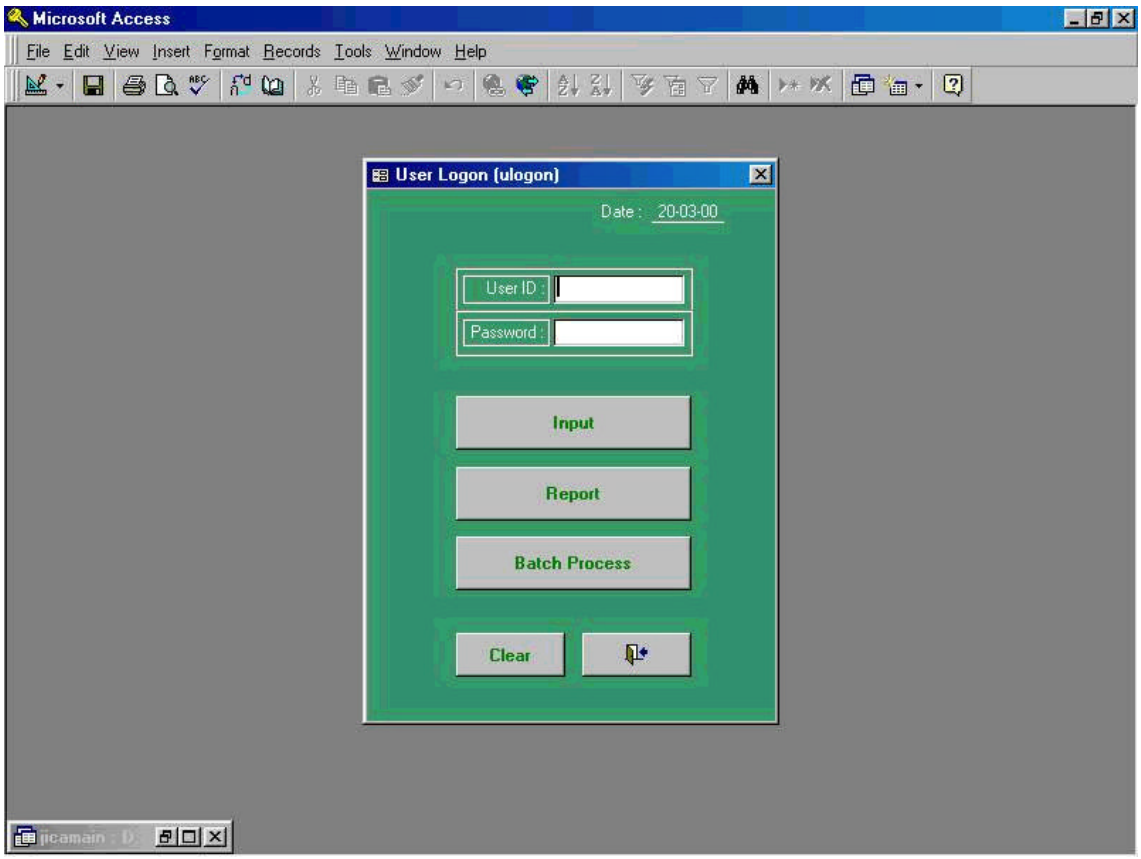
Above image is an initial screen of the monthly statistics survey, which is the processing and data handling system created by the JICA Study Team. The user of this system will first see this screen automatically after he or she turned on the power switch of the computers installed the processing software.

All files which are related to the processing systems are loaded in **" Drive C "**, however the users are not supposed to be conscious of it since the computer will boot automatically and show above screen.

The shortcuts in above screen, there are only one shortcut icon which leads to the initiation of operation in statistics survey processing; namely **" jicamain ".**

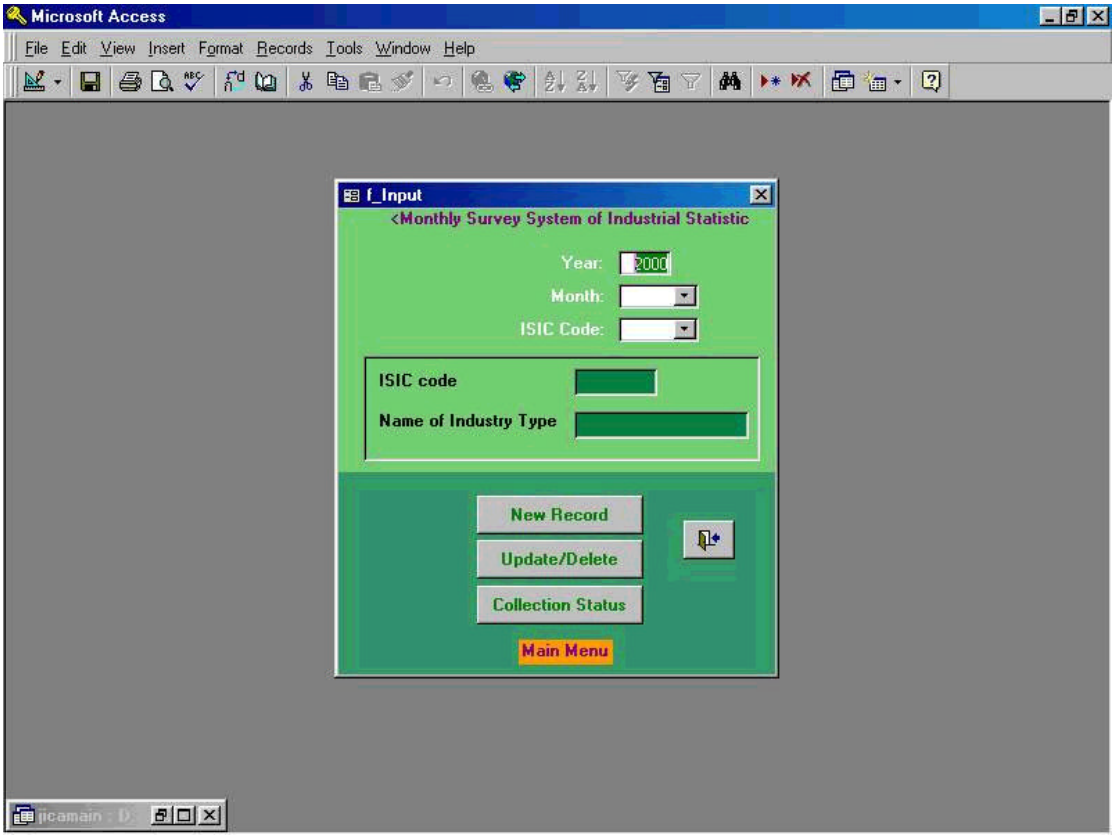
To initiate operation, please click shortcut icon of **" jica.main "** twice with left side button of the mouse in your computer. Then the user will see the initial processing screen of the entire data handling system. The initial screen is shown in the following page.

2. User Log-in Screen



The screen shown above is User Log-in Screen that allows to access the system. Users are able to use and operate the entire monthly statistics system by logging in both " **User ID** " number or code and " **Password** " given to those who are entitled to access the system. After all input operation for logging in procedure, the system will stand-by for the jobs users are intending to initiate of the operation. Users are able to select by clicking the mouse by pointing any jobs that users wish to proceed, either " **Input** ", " **Report** " " **Batch Process** " or " **Clear** " all systems.

3-1. Main Menu for Operation (1)



The screen shown above is the main menu of the entire statistical processing software. The users are able to select any tasks by clicking one of the command buttons with left side button of the mouse. Command buttons are consisting from the followings and brief function and its explanation for each command button are made;

(1) Client Side Command Buttons

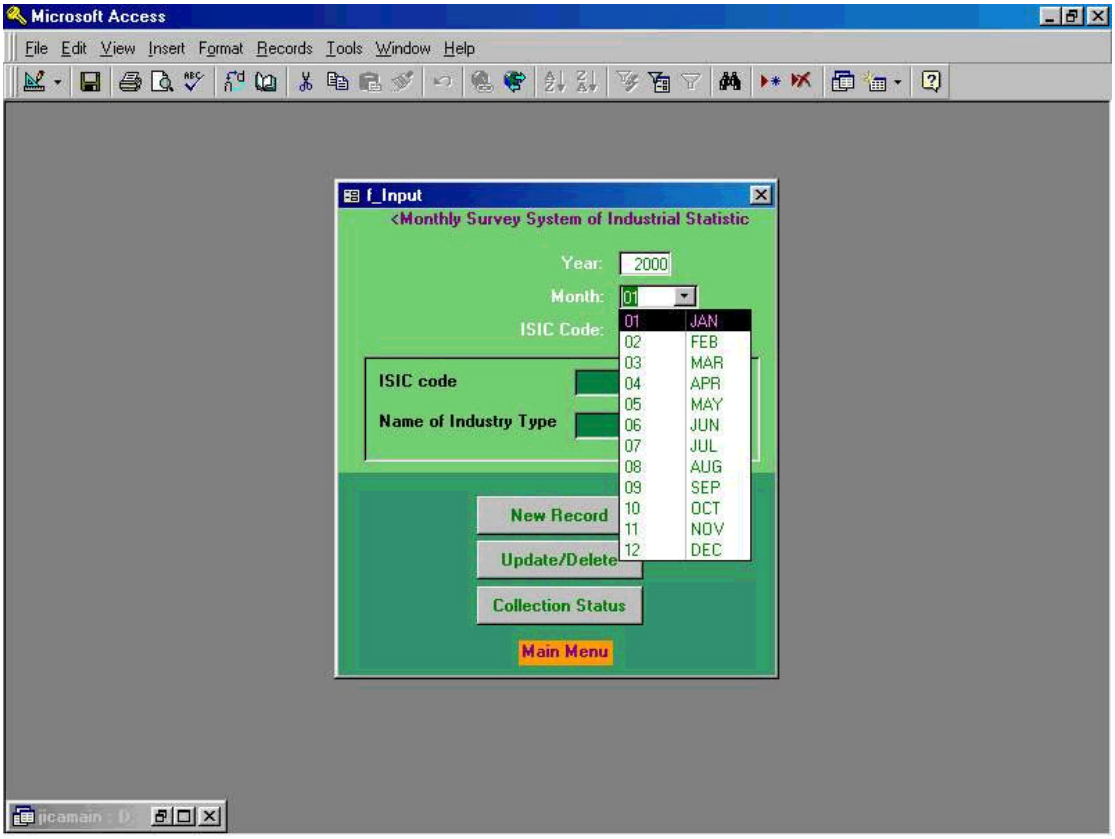
- **" New Records"** --- Input new record data to MS-Access data file
- **" Update / Delete"** --- Update or delete data which are already installed in the Access data file
- **" Collection Status"** --- Check questionnaires have been returned from the respondents

Detailed explanation on each above command buttons will be made in later portion of this operation manual in above order. However, it is very important to note that those who are going to input the data should follow the process describing below.

a. Input data which are written in the questionnaire ---- First, point arrow to **" Year: "** which is shown at the top portion of the main menu and then click by left button of the mouse and select the year he is going to input. Second, point arrow to **" Month: "** and **" ISIC Code"** in same manner.

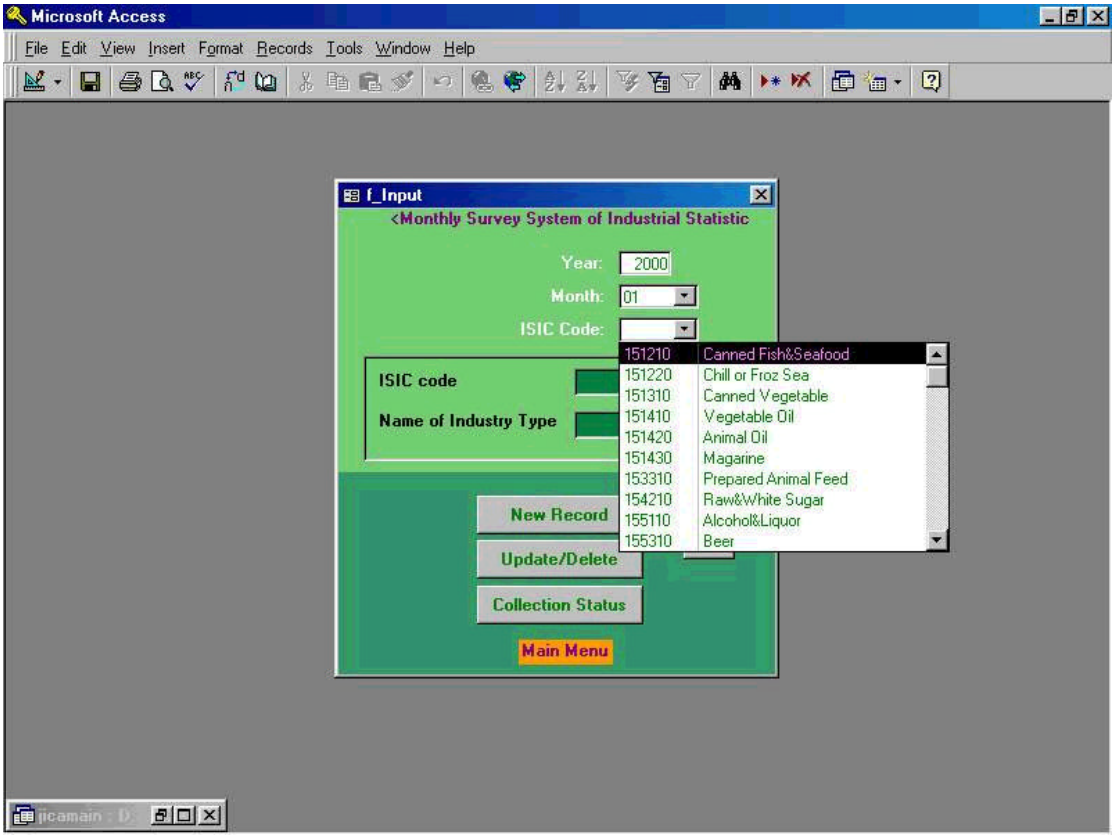
b. When user clicked **" ISIC Code"** command button, the screen shown in the next page will appear automatically. The user will notice that he is not required to input questionnaire number manually since questionnaire numbers (4digits), ISIC codes (4 digits), month (2 digits), and industry classification (consisting from characters) will appear automatically. Only the task user should operate is in this event is to point questionnaire number only. The data will be automatically installed in the database file.
c. Choose any of the functions by clicking a command button.

3-2. Main Menu for Operation (2)



After process of the operation described in the previous page 3-1, the users will see the screen shown above. The screen is showing an example by choosing the year 2000 and the month of January (2 digits code 01).

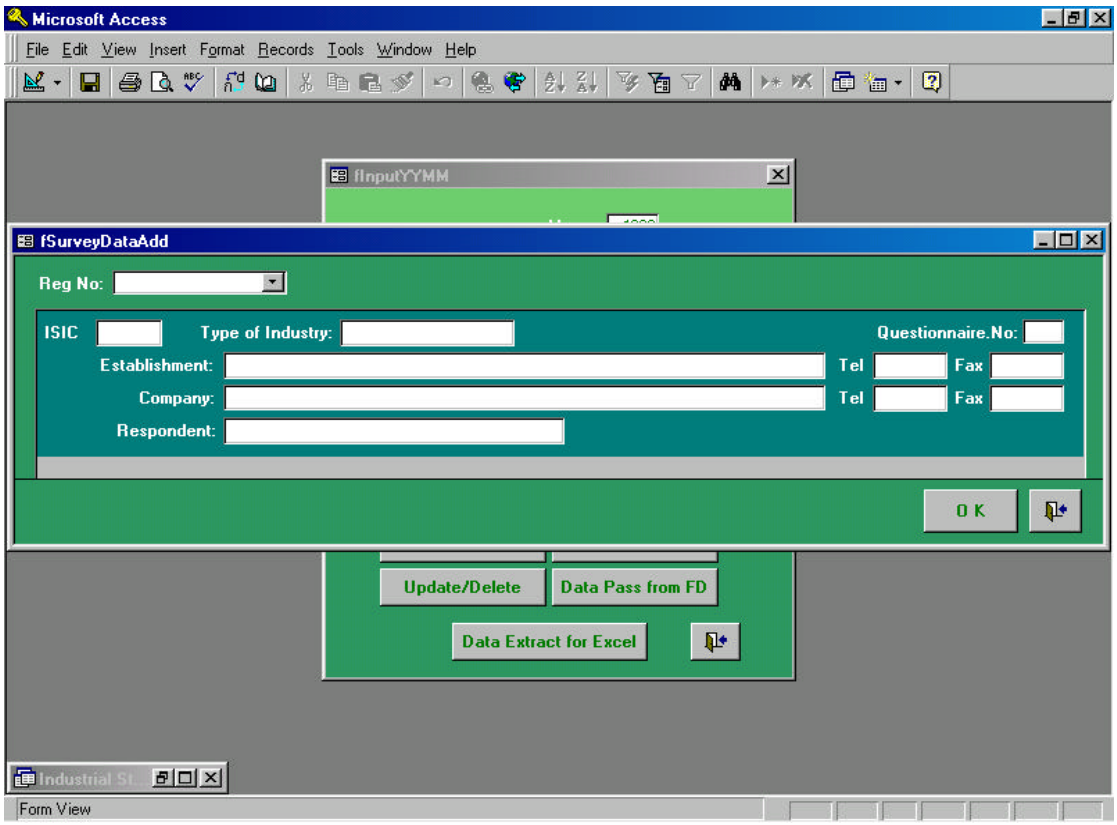
4. Selection of Industrial Classification



Following the process of operation taken in the previous page 3-2 and after the input of ISIC code, the users will see the screen shown above as an sample of the task. The screen is indicating ISIC code 151210 which is Canned Fish&Seafood.

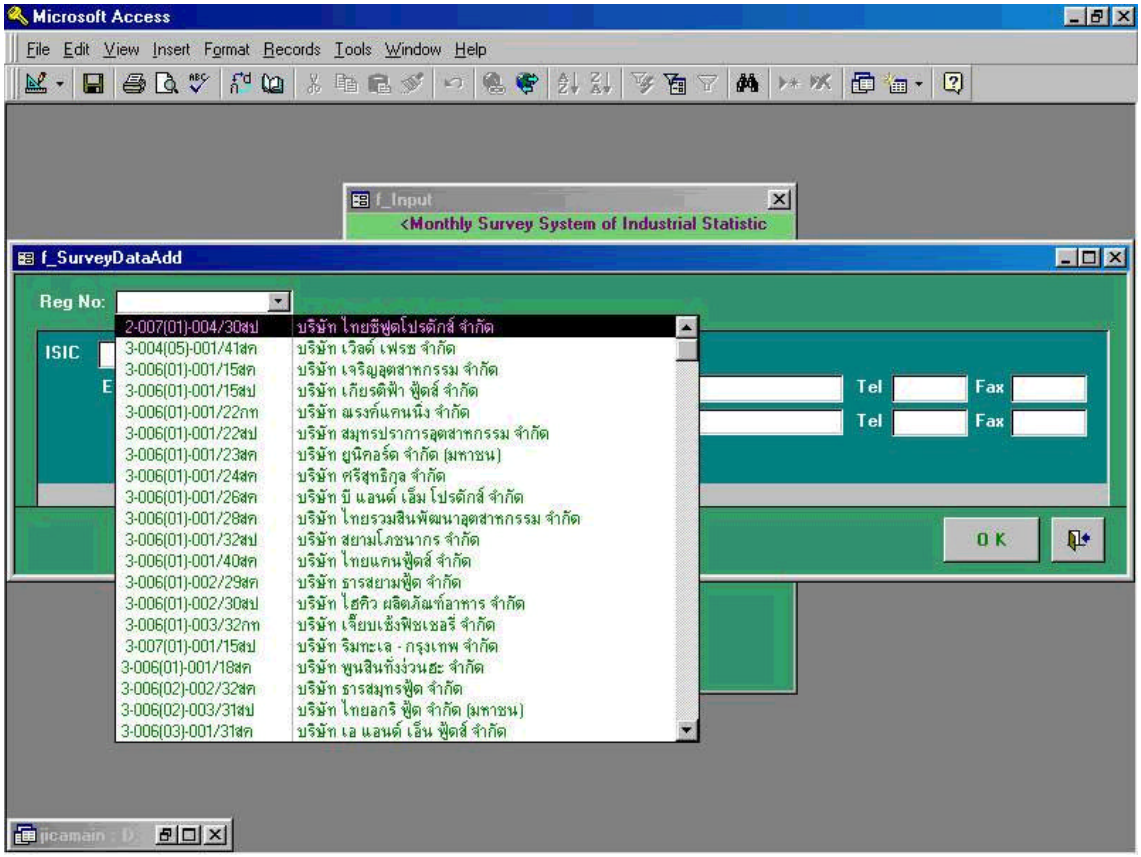
If the user is to input new data of just arrived questionnaire, then select and click **" New Record "**, or **" Update/Delete "** command button when update or delete data from the previous or old questionnaire are required. Following screen in the next page shows when the user selected **" New Record "** button. So, let's point the arrow **" New Record "** and click with the left button of your mouse. As a result, the screen shown in the next will appear.

5. Selection of Establishment (1)



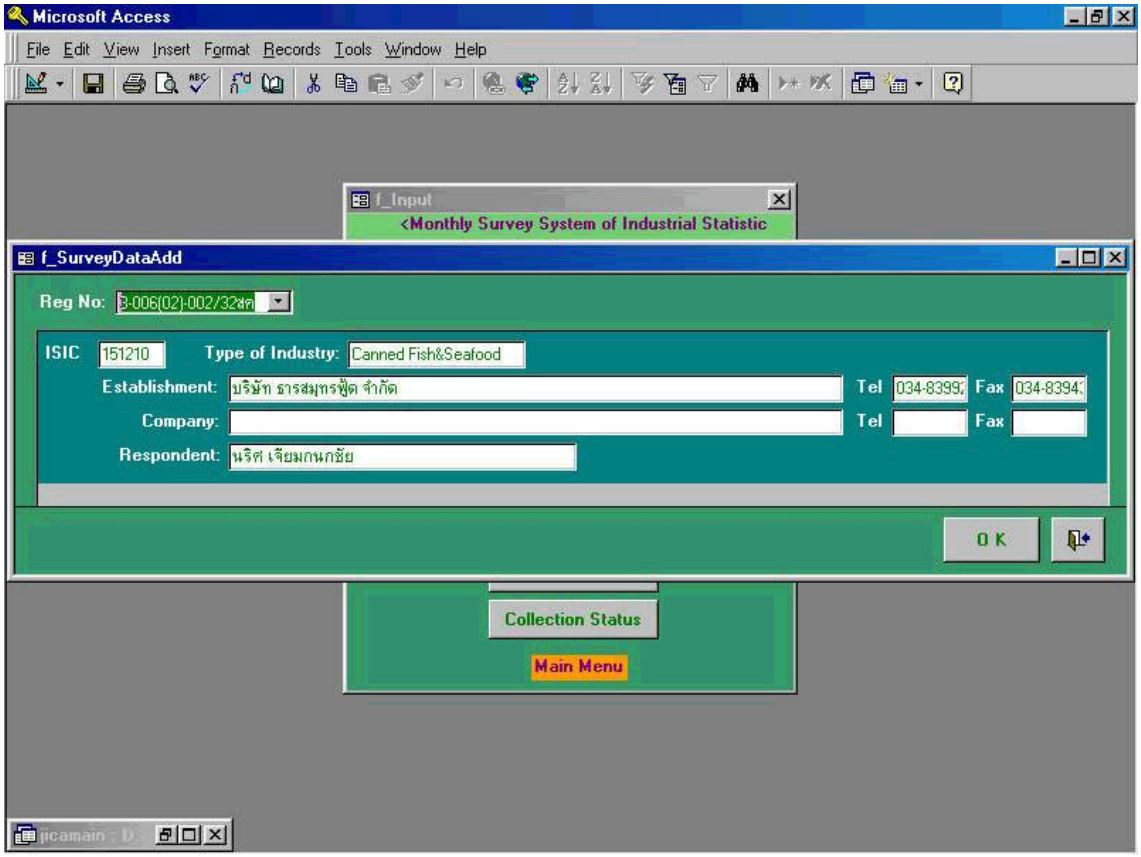
To match the registration number with the number which is indicated in the questionnaire, the user has to select one of the matching number from the company in which they are installed in the main population database by clicking **" Reg No: "** shown in the upper left corner of the above screen. To carry out this task, point the arrow of the right corner shown in **" Reg No: "** and click the button of the mouse.

6. Selection of Establishment (2)



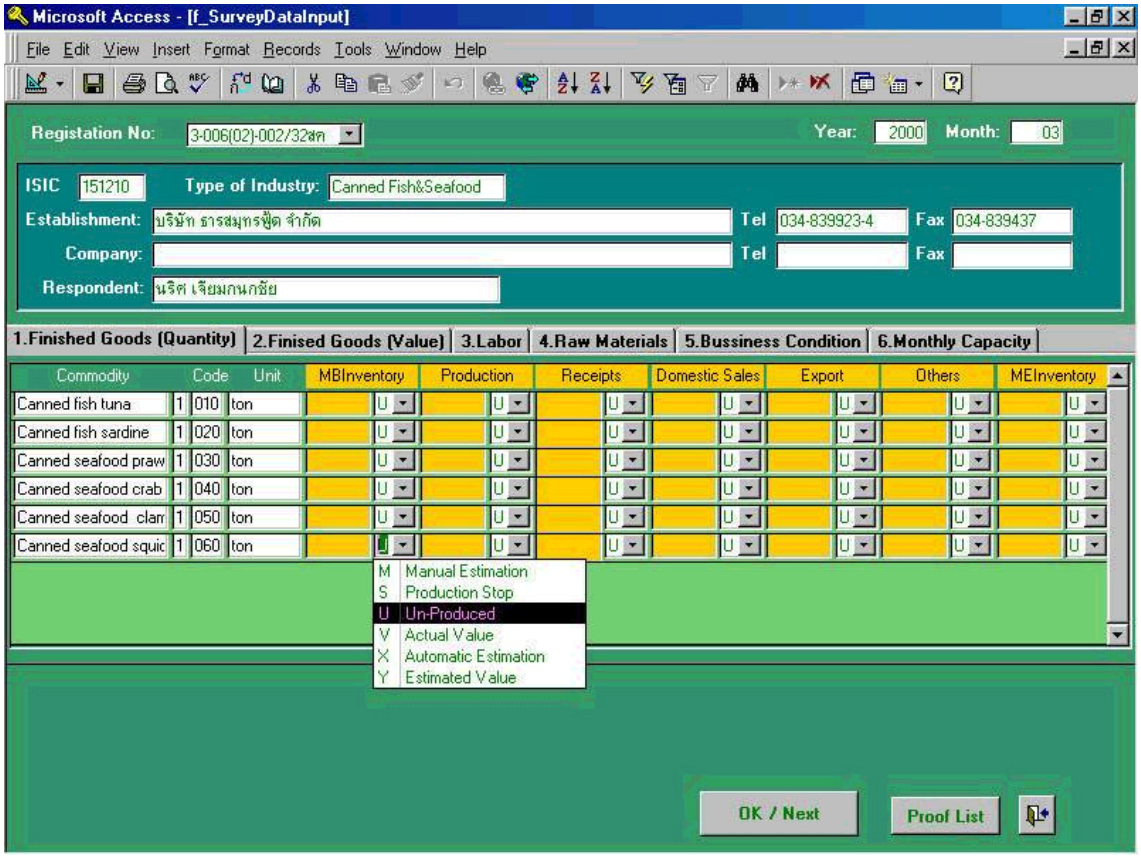
Upper screen in this page is the result of the task just carried out in the previous page. Now the user should do is only to choose a name of establishment by scrolling the list among the population in the database. Registration numbers shown in the left end of the highlighted part, two inputting methods have been used for classification of industries. First, a space has been put to identify the business establishments which have under management of the central office. In that case, a space should be punched in to the computer. The other is the number with a Thai character which indicates the business establishment under management of business establishment. And it leads to the records of which the users want to extract it.

7. Selection of Establishment (3)



With above screen, the user will be able to confirm the basic data and information contained in the database. To proceed, please type-in the registration number manually after pointing at the arrow of **" Reg No: "**. In case such business establishment was not the one which the user ought to seek, in other words, when the user found out the mismatching registration number in the questionnaire and the number appeared in the above number shown in the screen, then click **" Exit "** button at the right corner in the middle of the screen. If the number was the one of the establishments of which the user was targeting on, then click **" OK "** button.

8. Input Screen of Survey Data (1)



The screen shown above is the result which came out from the previous screen after the user selected and clicked **" OK / Next "** button.

Above screen is only showing inputting process of the establishment who has submitted its questionnaire before and continuously submitting. However, for those establishment who submitted their questionnaire for the first time, the operator of this statistics processing system has to initiate his process by creating new records. Even though, either process are almost the same, whether the questionnaire is newly arrived or repeatedly/continuously received from the business establishment.

Above is the actual screen that has been designed based on the questionnaire sheet for the survey, and has a direct user interface between the processing software and the users of the this program.

Now the user already selected the registration number with manual input. It should be noted that the following information came out automatically by taking such task (as shown in upper portion of above screen).

- ISIC Code number
- Type of Industry
- Name of Establishment
- Company
- Respondent
- Telephone and Fax numbers

Now let's go into the actual input processing (encoding) job. Users will be able to find five Index Tags in the upper middle portion of the screen such as the followings;

- **" 1. Finished Goods (Quantity) "**
- **" 2. Finished Goods (Value)"**
- **" 3. Labor"**
- **" 4. Raw Materials "**
- **" 5. Business Condition "**
- **" 6. Monthly Capacity "**

All numbers indicated above are followed by the numbers shown in the questionnaire sheet.

Following instruction shows a process showing an example of inputting data in **" 1. Finished Goods (Quantity) "**.

(1) Point the arrow of the mouse at **" 1. Finished Goods (Quantity) "** and click the left side button.
(2) Then either push **" Tab "** button of the keyboard of your computer or point the arrow of cursor to **" Finished Goods (Quantity"** portion (in the center portion) of above screen where the responded number applies to the questionnaire and click once. For example, if the respondent produces 110 tons of **" Canned Seafood Squid "**, point the arrow of the cursor and click the button and then input 110 with the keyboard.
(3) Follow the same steps as instructed above (1) and (2).

The following instruction also shows a process of inputting production value of a business establishment. Refer to the above screen **" 2. Finished Goods(Value) "**. The process to take for the users are exactly same as the steps described above.

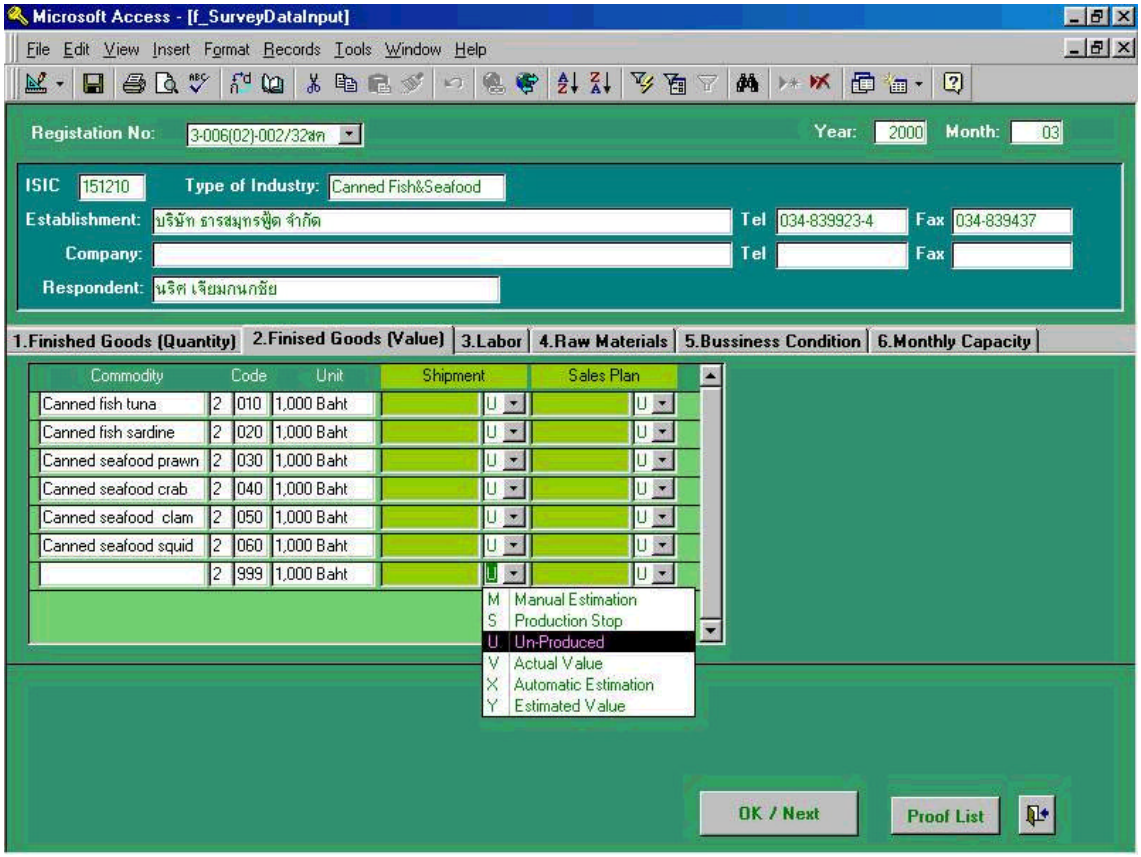
(1) Point the arrow of the mouse at **" 2. Finished Goods(Value) "** and click the left side button.
(2) Then either push **" Tab "** button of the keyboard of your computer, or point the arrow of cursor to **" 2. Finished Goods(Value) "** portion (in the center) of above screen where the responded number applies to the questionnaire and click once. For example, if the respondent produces one million Baht of **" Canned Seafood Squid "**, point the arrow of the cursor and click the button and then input 1,000 manually using the keyboard. Please remember that unit of Baht always show as 1,000 Baht.
(3) Follow the same steps as instructed above (1) and (2).

Proceed input work by taking same process as instructed above up to **" 3. Labor"**, **" 4. Raw Materials"** , **"Business Condition"** and **"Monthly Capacity"**. Inputting process is intentionally omitted since the processes are the same as indicated above.

Note 1: Please do not click **" OK/Next "** Button, which is shown further right bottom corner of the screen, unless the user completed inputting whole data into the cell. If the user clicked **" OK/Next "** button by mistake, previous screen will come out automatically, then the user has to re-start from the beginning of the inputting process even inputting process is under way without saving the data already input.

Note 2: There are some cells that users are not able to or not supposed to input, of the color of the cell shown in gray color.

9. Input Screen of Survey Data (2)

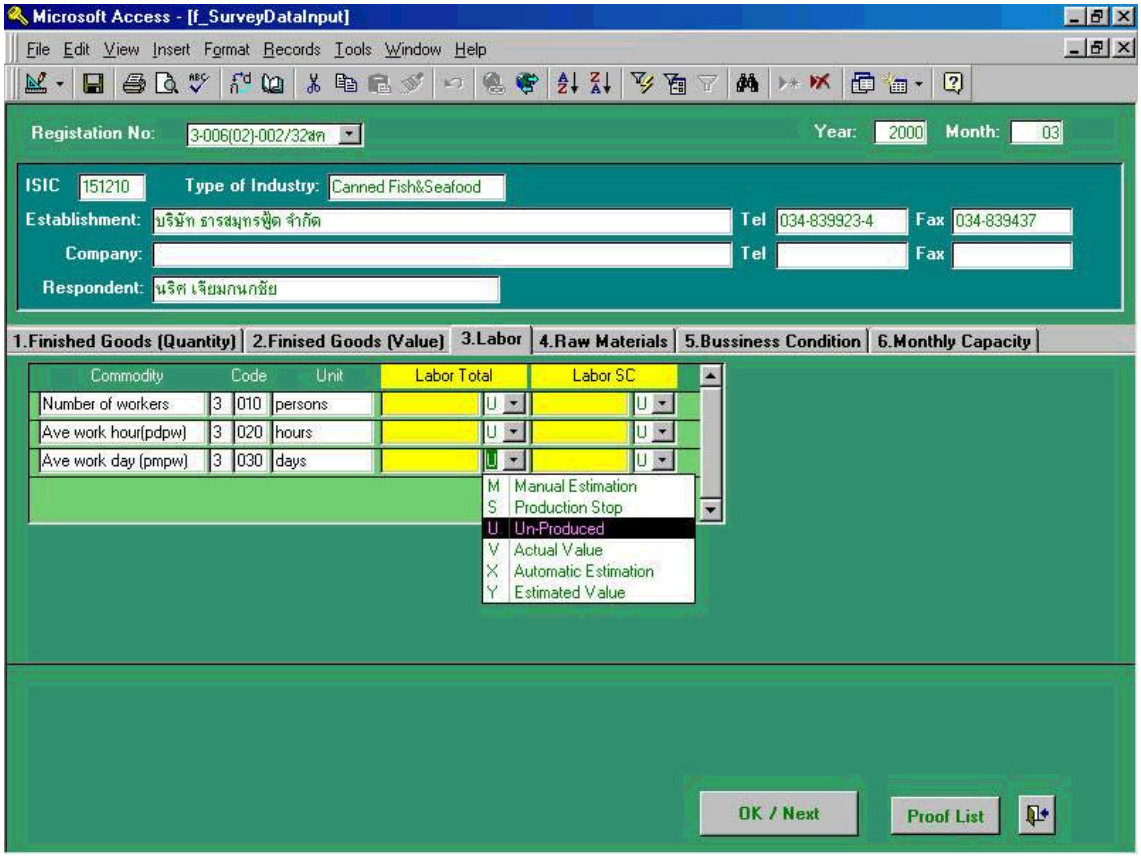


When the user clicks the Index Tag of **" 2. Finished Goods(Value) "**, above screen will be shown up as an input screen of the value of the respondent's production. Please input all numbers indicated in the questionnaire accordingly. And do not forget the unit of the production value is 1,000 Baht.

Please note that case this business establishment was not producing any finished products(or goods), click **" Shipment "** tag and choose one of the instruction showing in the column **" U: Un-Produced "** namely the establishment is currently not producing any finished goods.

Other tags shown in the column **"M: Manual Estimation"**, **"S: Production Stop"**, **"V:Actual Value"**, **"X: Automatic Estimation"**, and **"Y: Estimated Value"** will be explained in the last half portion of this manual.

10. Input Screen of Survey Data (3)



Let us continue processing of **“ 3. Labor** by taking same process as explained in the inputting section of **“ 2. Finished Goods(Value) ”**, and do not forget always that unit of each tag varies all the time.

After clicking the tug of **“ 3. Labor ”**, operator of the system will the screen showing above. Note in the half bottom portion of the screen indicates that there are three categories in commodity section namely Number of workers with 010 code and unit in persons, Average work hour with 020 code and unit in hours, and Average work day with 030 code and unit in days. Please note that in the commodity tag showing pdpw and pmpw stands for per day and per week, and per month and per week respectively.

Also note that in **“ Labor Total ”** tug **“M: Manual Estimation”**, **“S: Production Stop”**, **“V:Actual Value”**, **“X: Automatic Estimation”**, and **“Y: Estimated Value”** will be explained in the last half portion of this manual, however during the process of **“ 3. Labor ”**, “ U:Un-Produced” should be chosen all the time.

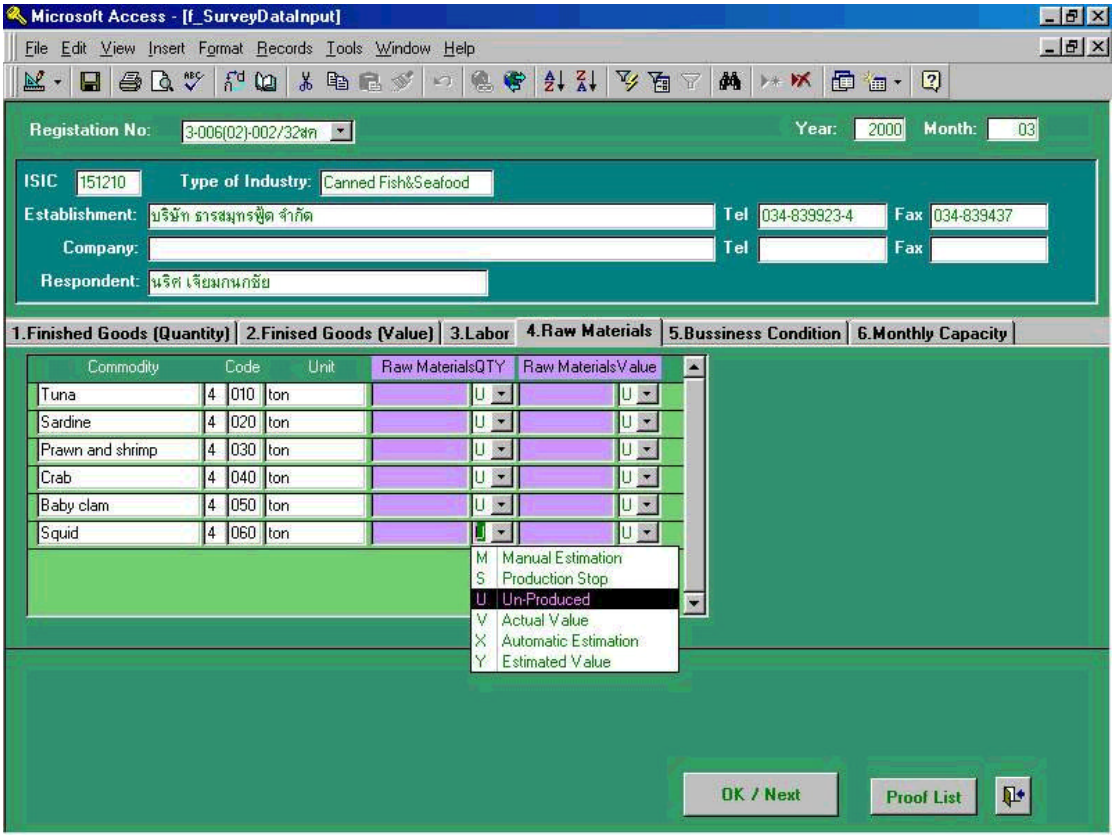
Let us go into inputting **“ 5. Business Condition ”** part of data. As shown in above screen, **“ 5. Business Condition ”** is lined up as the last input portion. (See in the right end of the center portion of the screen)

Process is the followings;

(1) First, click anywhere within the square of the **“ 5. Business Condition ”** part, or push **“ Tab ”** key of the keyboard until the **“ 5. Business Condition ”** cell will be highlighted.
(2) Then point the arrow to the selection window and click with the left button of the mouse.
(3) Five categories of the indication of business condition (1. Very good, 2. Somewhat good, 3. Stable, 4. Somewhat bad, and 5. Bad) will appear automatically. Only the user should do is to select one of the conditions by collating with the answers of the respondents. In this event, user should squeeze and arrow by pushing left button of the mouse and point the relevant conditions then release the button.
(4) Data on selected business conditions will be automatically stored in the database of the computer.

This is the end of whole input process of the questionnaire. After all process is completed, next task that user will do is to point the arrow to **“ OK/Next ”** button shown in the bottom right of above screen. Then initial input screen will come out automatically (See the screen shown in the next page).

11. Input Screen of Survey Data (4)



Following the process of inputting labor, the next portion to be taken is to input **" 4. Raw Materials"**. In this process by clicking the tug of **" 4. Raw Materials"** which appears in the center of above screen, the users get the input menu as shown above. First, the operator should input the number of quantity and value from those indicated in the questionnaire. Note that the unit of both are indicated as ton.

Also note that in **" Raw Materials"** tug, **"M: Manual Estimation"**, **"S: Production Stop"**, **"V:Actual Value"**, **"X: Automatic Estimation"**, and **"Y: Estimated Value"** will be appeared, however, users should always select **" U: Un-Produces "** as default settings. Meaning of those are the followings;

(1) **"M: Manual Estimation"** --- Value which are estimated by the operator of the system.

(2) **"S: Production Stop"** --- Replied business establishments are not producing any more and no numbers are not supposed to be input in this column.

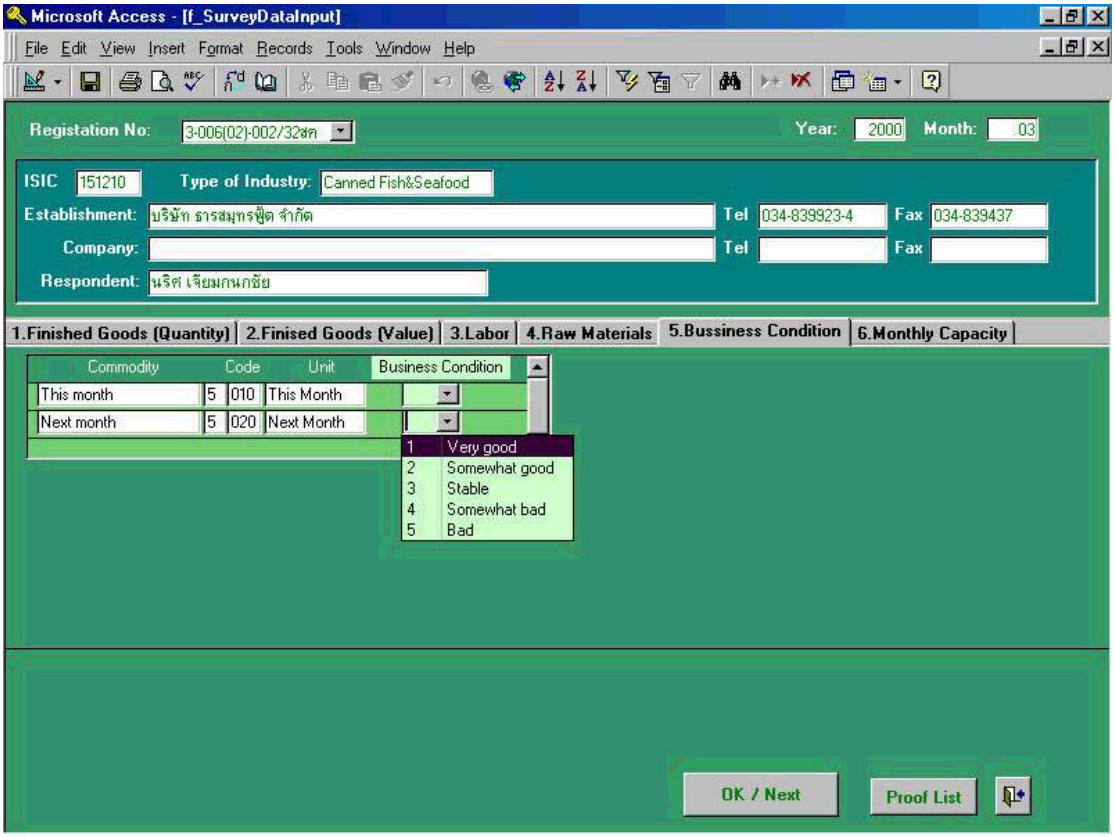
(3) **" U: Un-Produced "** --- Default settings otherwise indicated.

(4) **"V:Actual Value"** --- Data actually responded by the respondents/business establishments

(5) **"X: Automatic Estimation"** --- Values which are estimated by the systems using atuomatic calculation program software within the system.

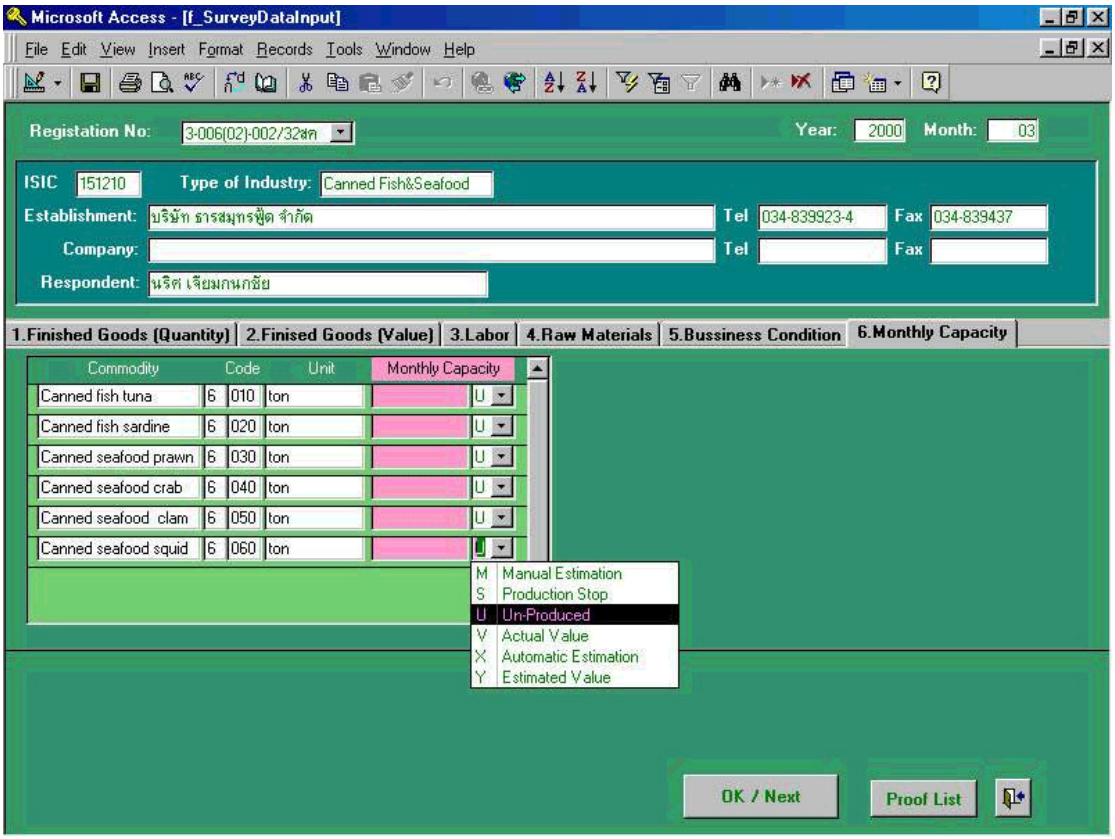
(6) **"Y: Estimated Value"** --- Value which are estimated by the operator/user personnel of the monthly statistics processing system.

12. Input Screen of Survey Data (5)



Screen showing above indicates the input process of **"5. Business Conditions"**. There are two classifications in each item, either business of **" This month "** or **" Next Month "** with code 010 and 020 and unit **" This month "** and **" Next Month "**. Business conditions are categorized by 5 ranks expressing the business conditions of those who replied to the questionnaire of the survey, namely **" 1: Very good "**, **" 2: Somewhat good "**, **" 3: Stable "**, **" 4: Somewhat bad "** and **" 5:Bad "**. Operators/users of the system should choose one from those categories based on the contents of the responses expressed in the survey questionnaire.

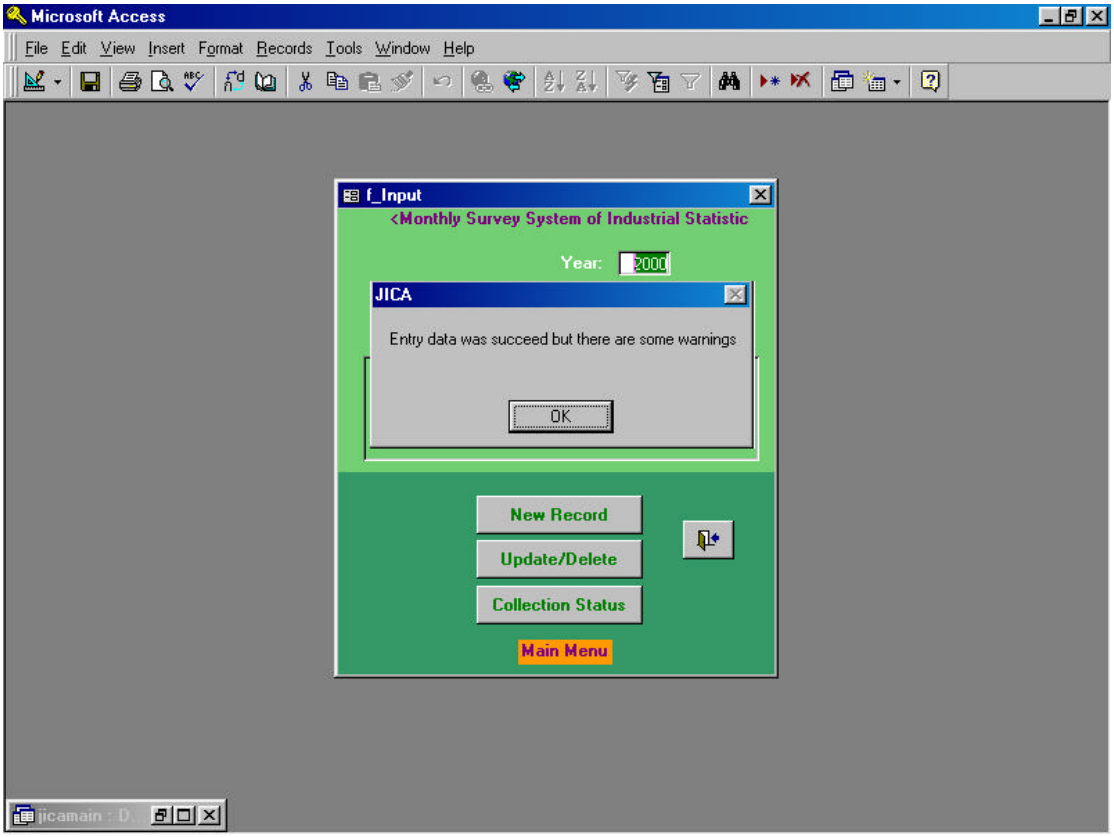
13. Input Screen of Survey Data (6) (*Capacity)



So far described input process, which counts from Screen 8 through Screen 12 are the basic processing of input based on the responded questionnaire. After those input process has been completed and the key button of **" OK/Next "** is clicked by the operators/users of the computer system, the screen shown in the next page Screen 14 appears in case some warning has been occurred in the system or during the process of operation, which are limited to miss operation or mismatching of input data process. Both pages of 16(2)-1 and 16(2)-2 are some examples of Warning Log Report. The process taken in this stage will be precisely explained in the portion of Screen 15.

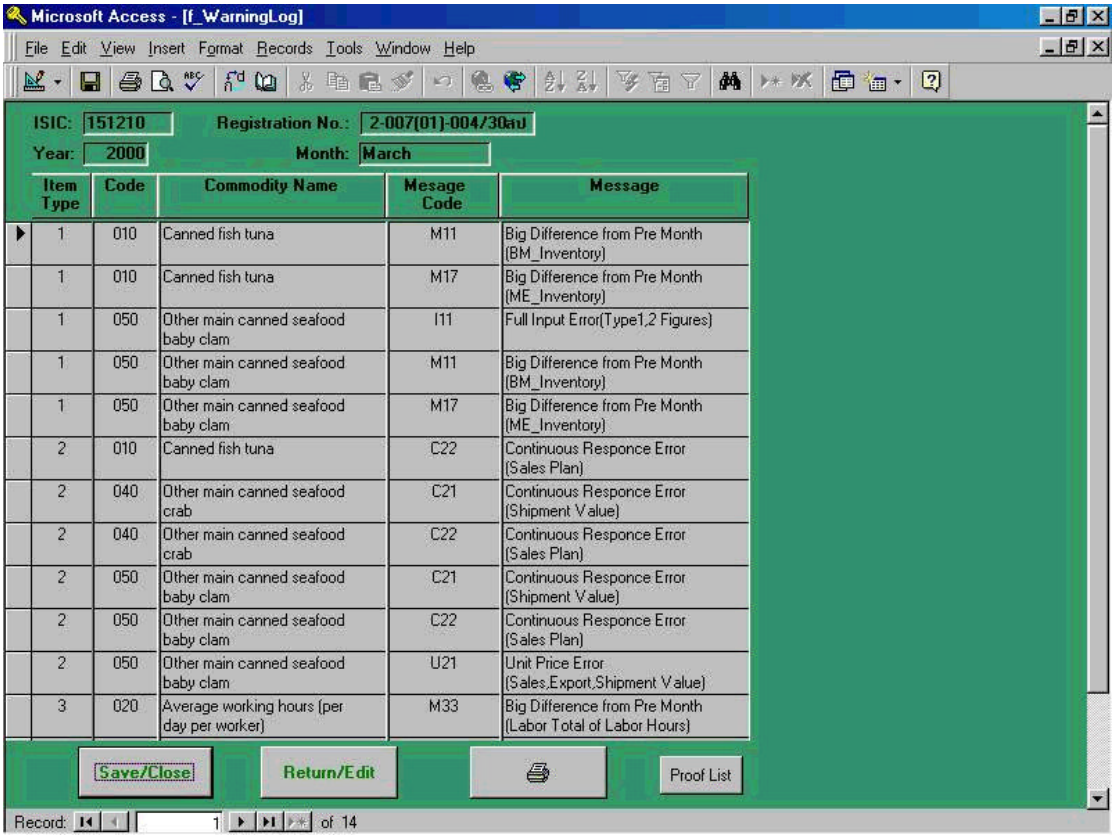
If all the process have been completed without occurring any warnings, and **" Proof List "** was selected and clicked by the operator, preview screen of Screen 16-(3) which is Proof List of the Questionnaire will be appeared. Screen 16-(4) is actual output copies which is printed out by printer.

14. Warning Log Indication (1)



After completion of input process, and the key **" OK/Next "** button was clicked, the screen shown above appears. This is the case some warning has been occurred in the system or during the process of operation. To identify the contents of the warning message, the user or operator of the system should click **" OK "** button as the next step. The screen shown in the next page Screen 15 is the outcome of this task.

15. Warning Log Indication (2)

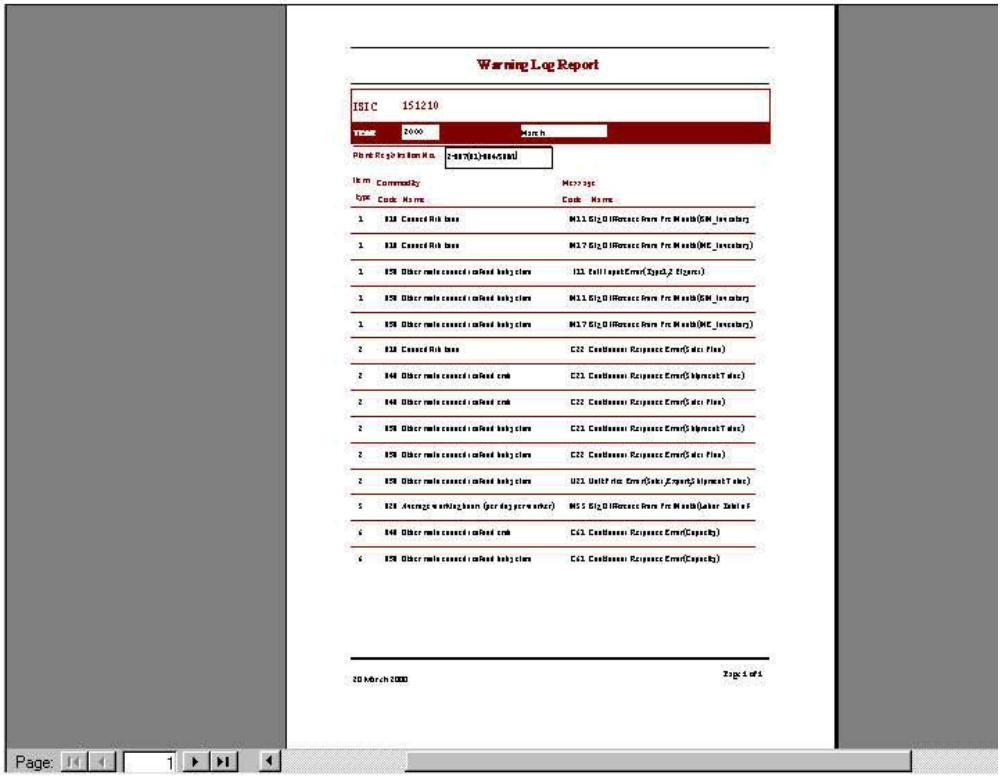


Screen shown above is all list of the warnings. All users and operators of the system should carefully identify the errors occurred during all input process. If the operator was intending to go into further detail of the contents of the warning, first click printer icon in the screen and then find preview screen showing the list of the warning, and again click printer button in the same screen for hard copy of the warning list. Please refer to 16(1) and 16(2) for the results. If the user clicks **" Proof List "** button, preview screen 16(3) will appear and 16(4) will be printed out using printer command.

To solve all errors and for revision of the process, if the operator clicks **" Return / Edit "** button, the screen goes back to Screen 8 automatically, and will be ready for revision of each error. It goes back to each collected questionnaire of the business establishment. After completion of all revision, and if the **" Save/Close "** is chosen to click, all revised data will be stored in the computer automatically. (Refer Screen 6 for confirmation of this process.)

16-1. Warning Log Indication (1)

(Screen Only)



Warning Log Report

ISIC 151210

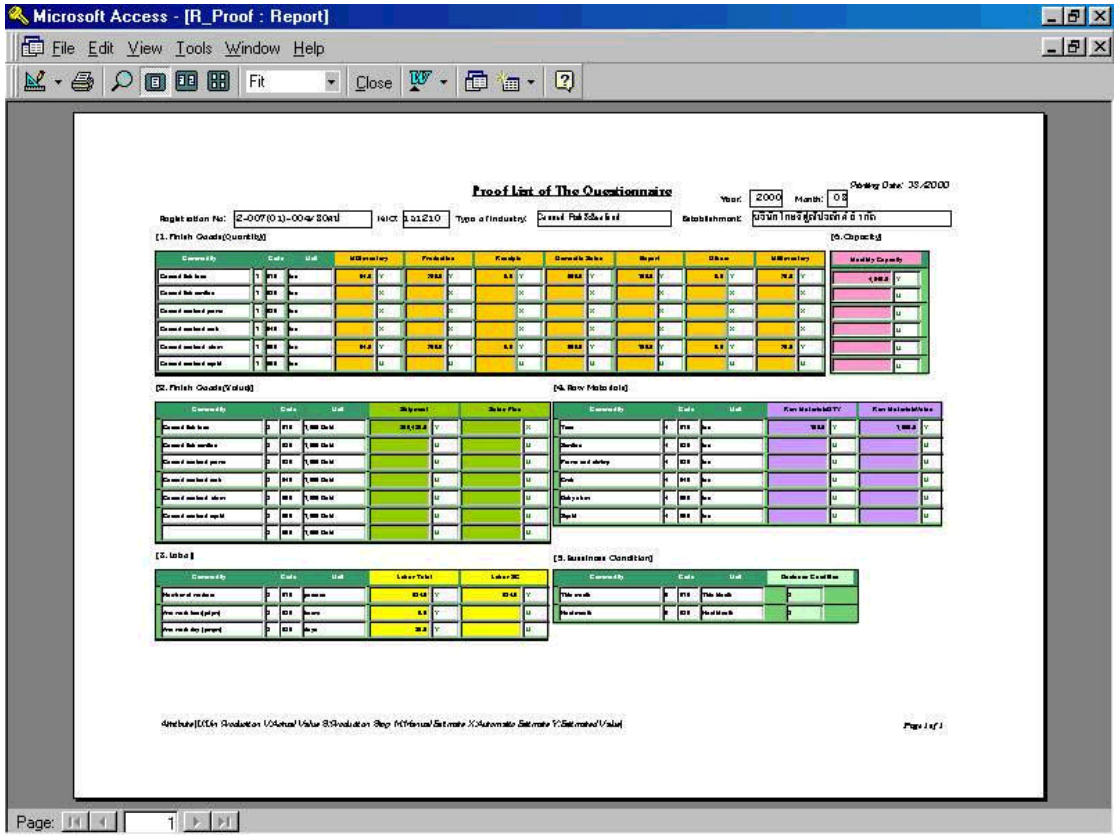
YEAR 2000 January

Plant Registration No. 3-006(01)-001/22กท

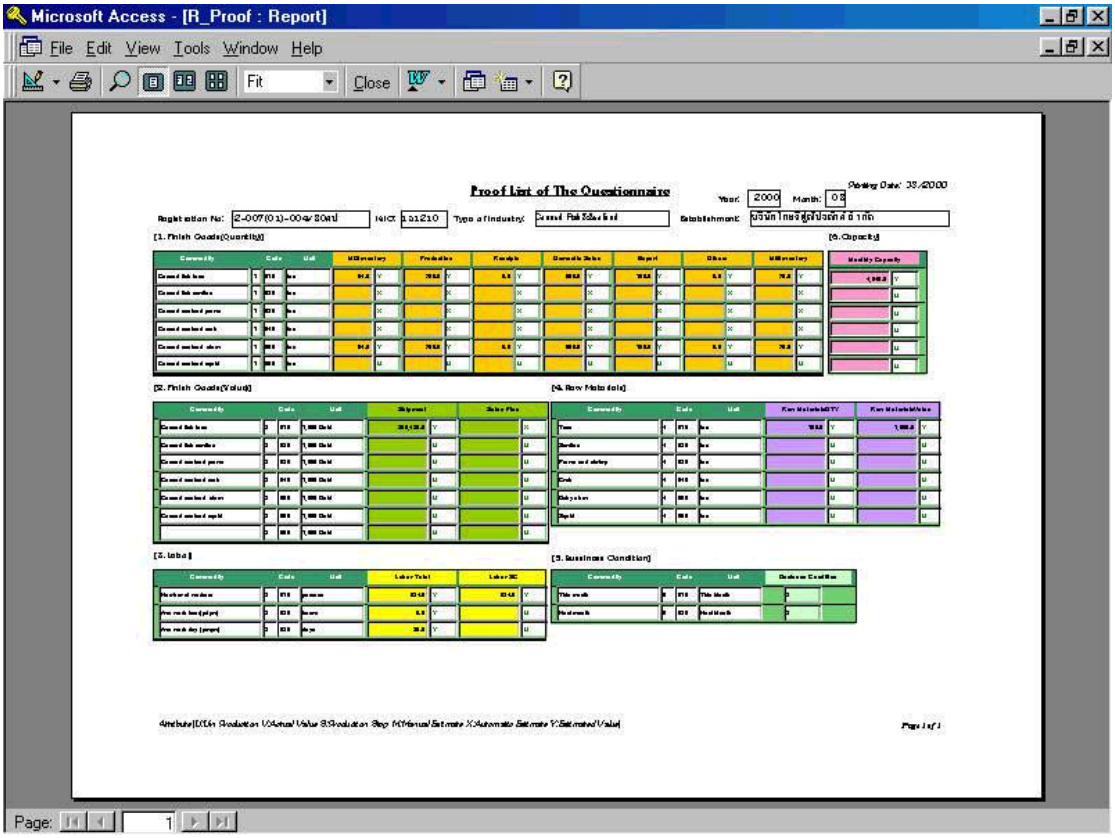
Item type	Commodity Code	Commodity Name	Message Code	Message Name
1	010	Canned fish tuna	M11	Big Difference from Pre Month(BM_Inventory
1	010	Canned fish tuna	M12	Big Difference from Pre Month(Production QT
1	010	Canned fish tuna	M15	Big Difference from Pre Month(Export)
1	010	Canned fish tuna	M17	Big Difference from Pre Month(ME_Inventory)
1	010	Canned fish tuna	Y12	Big Difference from Pre Year(Production QTY
1	010	Canned fish tuna	Y14	Big Difference from Pre Year(Domestic Sales)
1	010	Canned fish tuna	Y15	Big Difference from Pre Year(Export)
1	010	Canned fish tuna	Y17	Big Difference from Pre Year(ME_Inventory)
1	020	Canned fish sardine	M11	Big Difference from Pre Month(BM_Inventory
1	020	Canned fish sardine	M12	Big Difference from Pre Month(Production QT
1	020	Canned fish sardine	M14	Big Difference from Pre Month(Domestic Sales
1	020	Canned fish sardine	M15	Big Difference from Pre Month(Export)
1	020	Canned fish sardine	M17	Big Difference from Pre Month(ME_Inventory)
1	020	Canned fish sardine	Y12	Big Difference from Pre Year(Production QTY
1	020	Canned fish sardine	Y14	Big Difference from Pre Year(Domestic Sales)
1	020	Canned fish sardine	Y15	Big Difference from Pre Year(Export)
1	020	Canned fish sardine	Y17	Big Difference from Pre Year(ME_Inventory)

2	010 Canned fish tuna	M21 Big Difference from Pre Month(Shipment Valu
2	010 Canned fish tuna	Y21 Big Difference from Pre Year(Shipment Value)
2	020 Canned fish sardine	M21 Big Difference from Pre Month(Shipment Valu
2	020 Canned fish sardine	M23 Big Difference from Pre Month(Unit Price)
2	020 Canned fish sardine	Y21 Big Difference from Pre Year(Shipment Value)
2	020 Canned fish sardine	Y23 Big Difference from Pre Year(Unit Price)
2	999	M21 Big Difference from Pre Month(Shipment Valu
2	999	Y21 Big Difference from Pre Year(Shipment Value)
3	010 Number of workers	M31 Big Difference from Pre Month(Labor Total of
3	010 Number of workers	M32 Big Difference from Pre Month(Labor SC of L
3	010 Number of workers	Y31 Big Difference from Pre Year(Total Labor Inpu
3	010 Number of workers	Y32 Big Difference from Pre Year(SC of Labor Inp
3	020 Average working hours (per day per worker)	M33 Big Difference from Pre Month(Labor Total of
3	020 Average working hours (per day per worker)	Y33 Big Difference from Pre Year(Labor Hours)
3	030 Average working days (per month per worke	M34 Big Difference from Pre Month(Labor Total of
4	010 Tuna	M41 Big Difference from Pre Month(RwMt_MEInv
4	020 Sardine	M41 Big Difference from Pre Month(RwMt_MEInv
4	020 Sardine	Y41 Big Difference from Pre Year(RwMt_MEInven
6	010 Canned fish tuna	M61 Big Difference from Pre Month(Capacity)
6	010 Canned fish tuna	Y61 Big Difference from Pre Year(Capicity)
6	020 Canned fish sardine	Y61 Big Difference from Pre Year(Capicity)

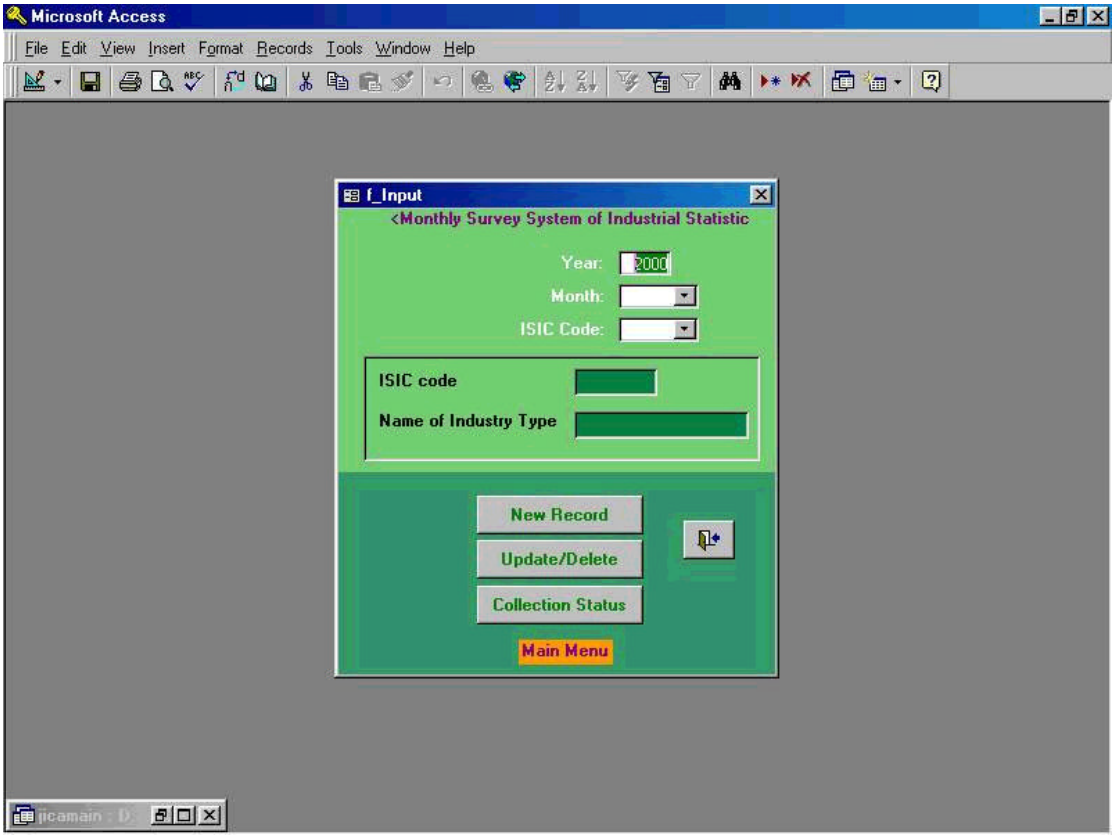
16-3. Proof List of the Questionnaire (1)



16-4. Proof List of the Questionnaire (2)

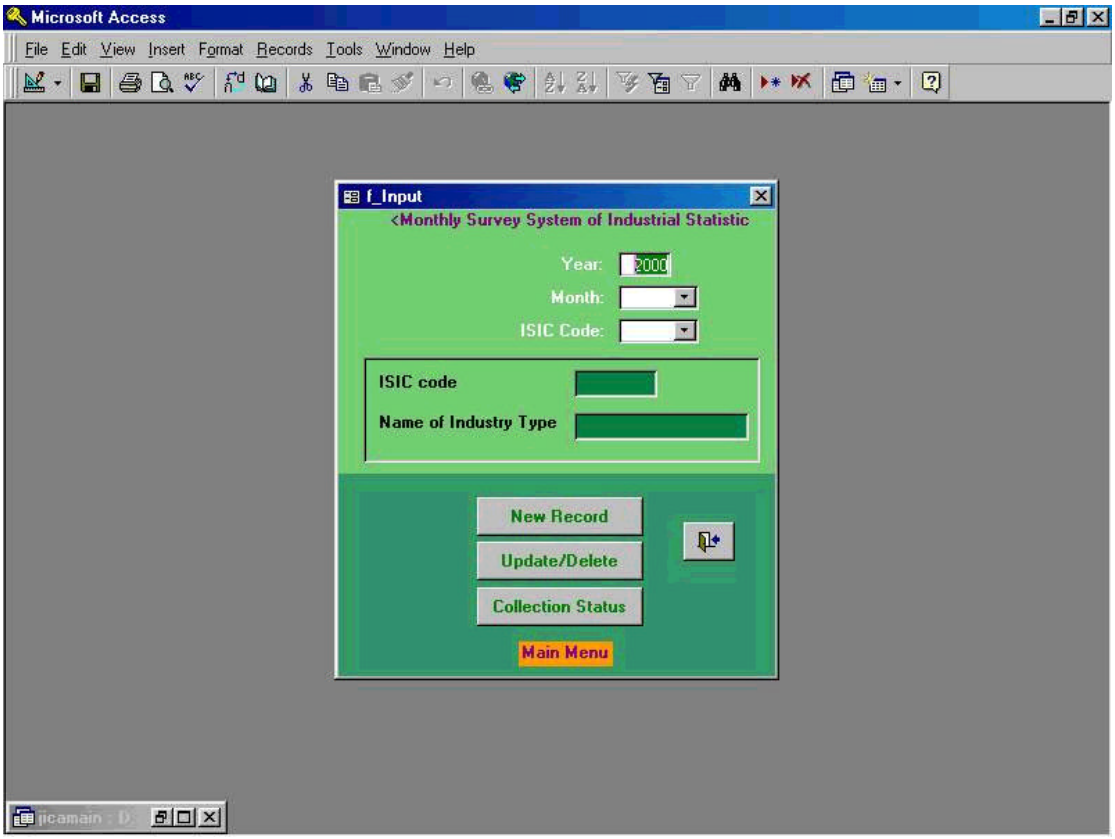


17. Main Menu for Operation



From Screen 1 to 16 which were described so far were mainly for " Update/Delete " process of the entire systems operation. Since the processing system is currently under operation for handling statistics systems, it was rather convenient to initiate from " Update/Delete " than entering from the beginning stage of operation. After " Update/Delete " command button is selected from the main menu shown in Screen 2, the users will get the screen shown above. This is the main and first screen to update and delete the data of the questionnaire received from surveyed and responded from a business establishment. By clicking " Update/Delete" button, user will get the screen showing in next page.

18-1. Initial Process of Update / Delete Task (1)



The screen shown above is the main menu of the entire statistical processing software. The users are able to select any tasks by clicking one of the command buttons with left side button of the mouse. Command buttons are consisting from the followings and brief function and its explanation for each command button are made;

(1) Client Side Command Buttons

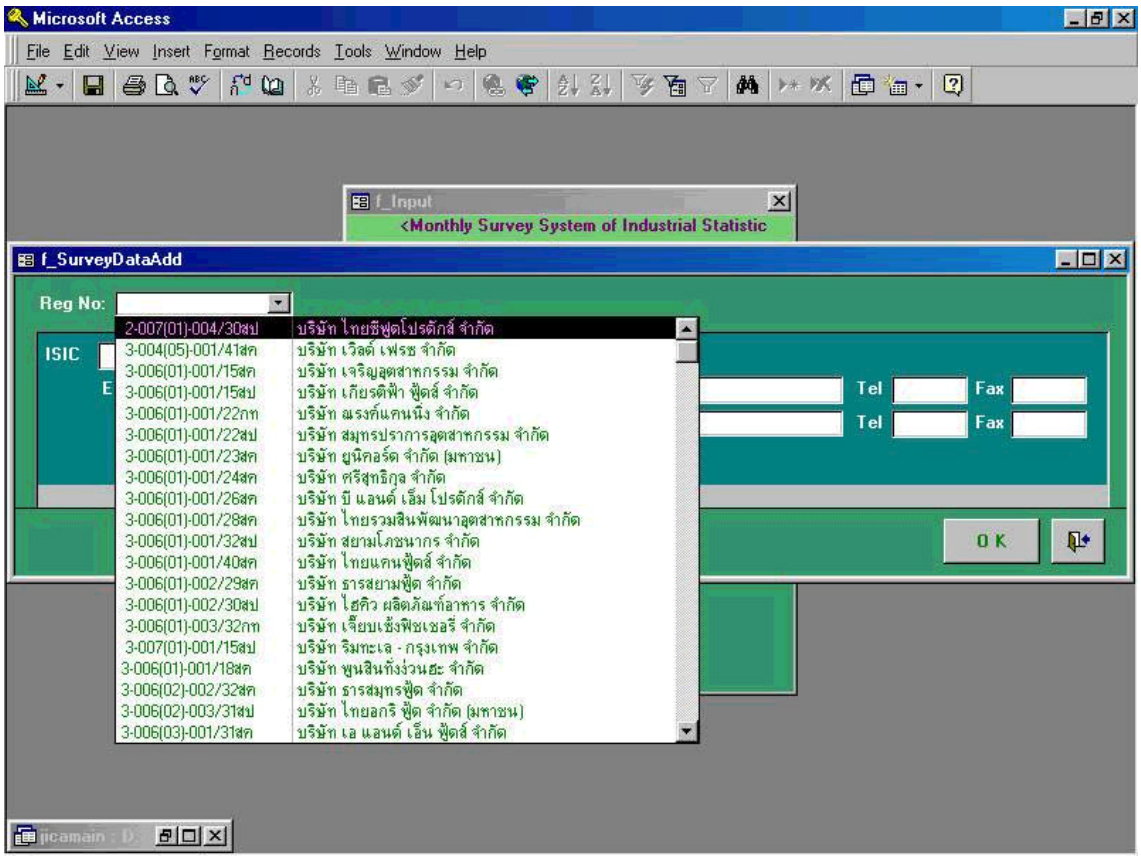
- **" New Records"** --- Input new record data to MS-Access data file

- **" Update / Delete"** --- Update or delete data which are already installed in the Access data file
- **" Collection Status"** --- Check questionnaires have been returned from the respondents

Detailed explanation on each above command buttons will be made in later portion of this operation manual in above order. However, it is very important to note that those who are going to input the data should follow the process describing below.

a. Input data which are written in the questionnaire ---- First, point arrow to **" Year: "** which is shown at the top portion of the main menu and then click by left button of the mouse and select the year he is going to input. Second, point arrow to **" Month: "** and **" ISIC Code"** in same manner.
b. When user clicked **" ISIC Code"** command button, the screen shown in the next page will appear automatically. The user will notice that he is not required to input questionnaire number manually since questionnaire numbers (4digits), ISIC codes (4 digits), month (2 digits), and industry classification (consisting from characters) will appear automatically. Only the task user should operate is in this event is to point questionnaire number only. The data will be automatically installed in the database file.
c. Choose any of the functions by clicking a command button.

18-2. Initial Process of Update / Delete Process (2)



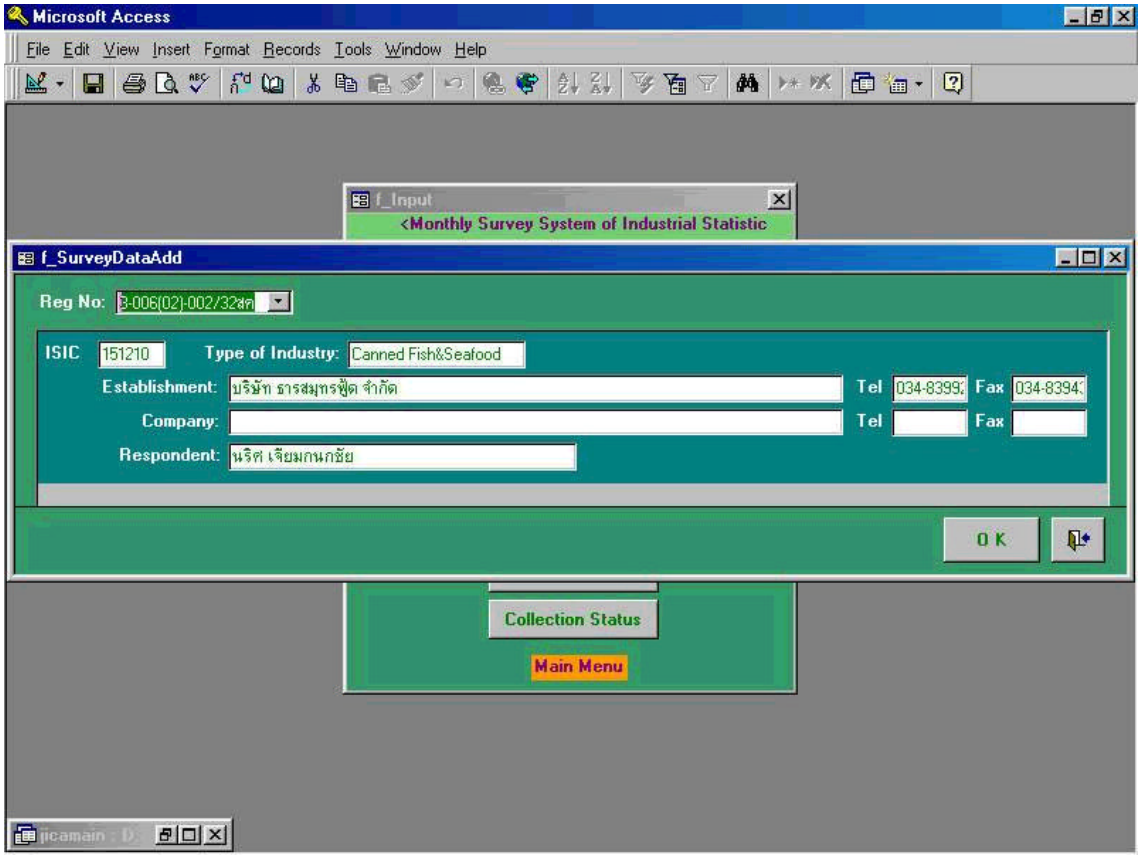
After clicking the command button of **"Update / Delete"** shown in the previous page, the user/operator will get the screen showing above. By pointing and clicking each tag shown in the screen, users should input either manually or some tags will automatically appears after the process of manual input has been taken by the users. Process should be taken by the operator are the followings;

(1) Registration No: Should be appeared automatically by pointing arrow of the mouse on right side of the **"Reg No**:**"** tag.

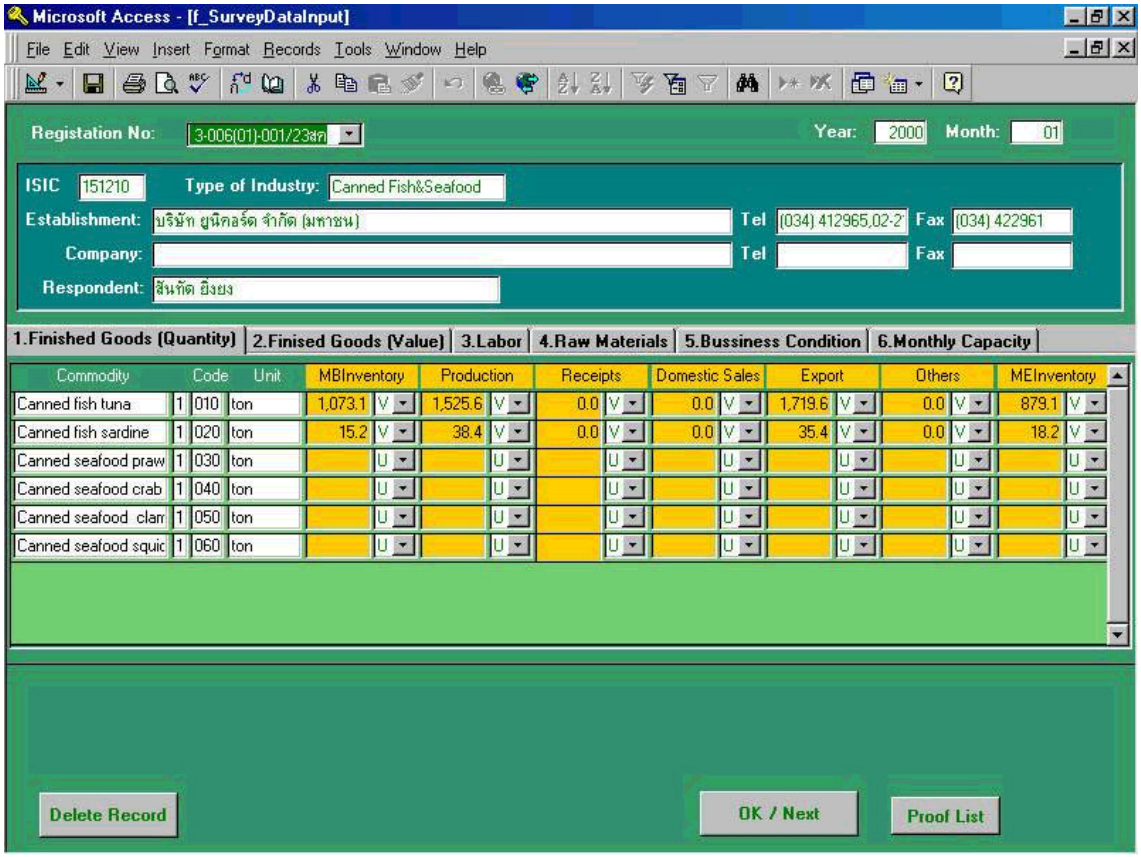
(2) After the process of the above (1), screens showing in the next 2 pages will appear with automatically filled out screens.

(3) With confirming all data shown in each tag of each page, the operator should click **" OK "** button shown in Screen 18-3.

18-3. Initial Process of Update / Delete Task (3)



19. Update / Delete Process (1)

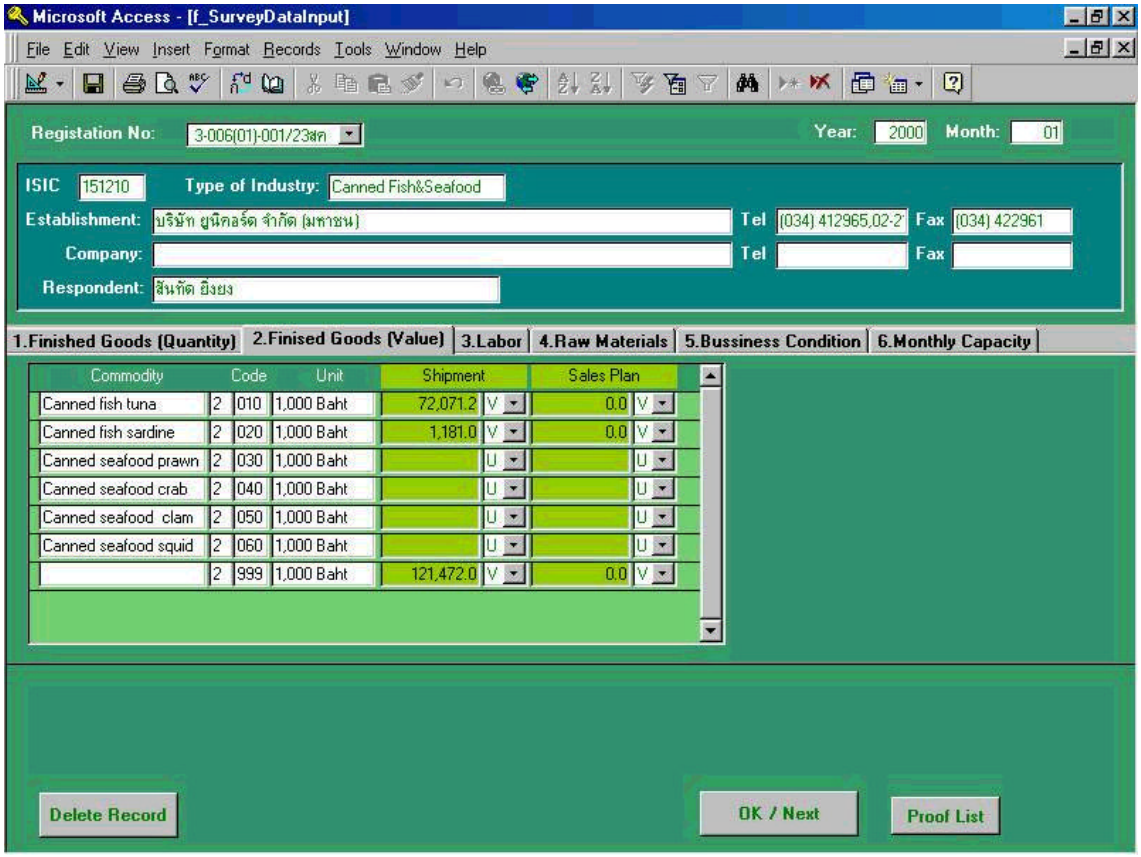


Above input screen will appear after the **" Registration Number: "** was input. This input screen of survey data is consisted from the following index tags, namely;

1. **" Production Quantity "**
2. **" Production Value "**
3. **" Labor "**
4. **" Raw Materials "**
5. **" Business Condition "**
6. **" Remarks "**

Users are able to select above 1 to 5 tags depending on where he or she is required to be corrected or revised. If the user is required to revise, for example, **" Production Quantity "**, put the arrow of the mouse to the place showing **" Production Quantity "** and click the button. The screen showing in the next page will appear.

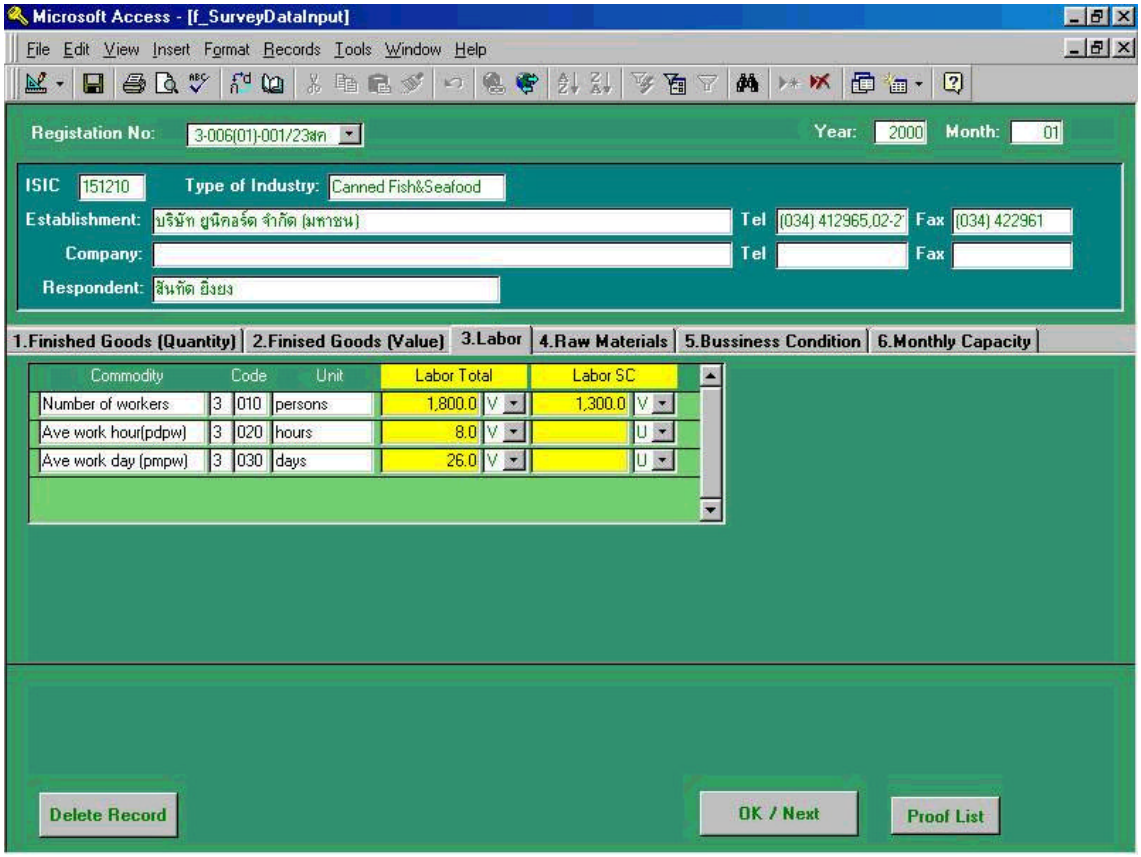
20. Update / Delete Process (2)



In above screen, please point one of the cells in which the information numbers are stored and click wherever the user wants to revise or correct and click with the left side button. And input any number that user would like to correct. Then click **" OK / NEXT "** button after the user finished editing (correction or revision) the data. If the user want to delete whole record of the data, then click **" Delete Record "** button Only if the user wants to delete the whole record of this survey data which are input from the questionnaire sheet. After user pointed the arrow to **" Delete Record "** tag, the following message will appear in the screen, **" Do you want to delete the record? "**. In that case, please click **" Yes "** if the user wants to delete the file, otherwise click **" No "**. Please note that deleting record function will execute by the unit of a questionnaire sheet containing registration number, year, and month.

If the user would like to go into the initial operation process, then click **" OK / Next "** button.

21. Update / Delete Process (3)

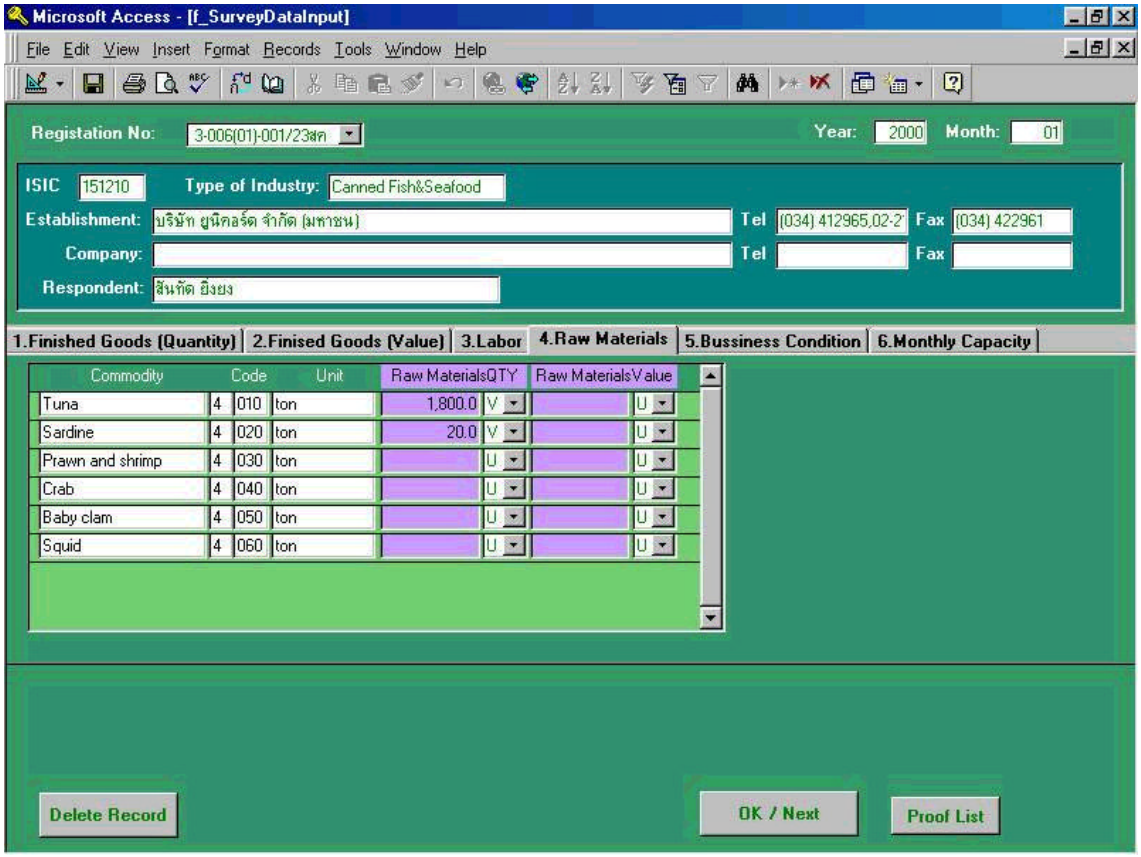


After the selection of **"Labor "** index tag, above input screen of survey data will appear. To process this correction task, please not the followings,

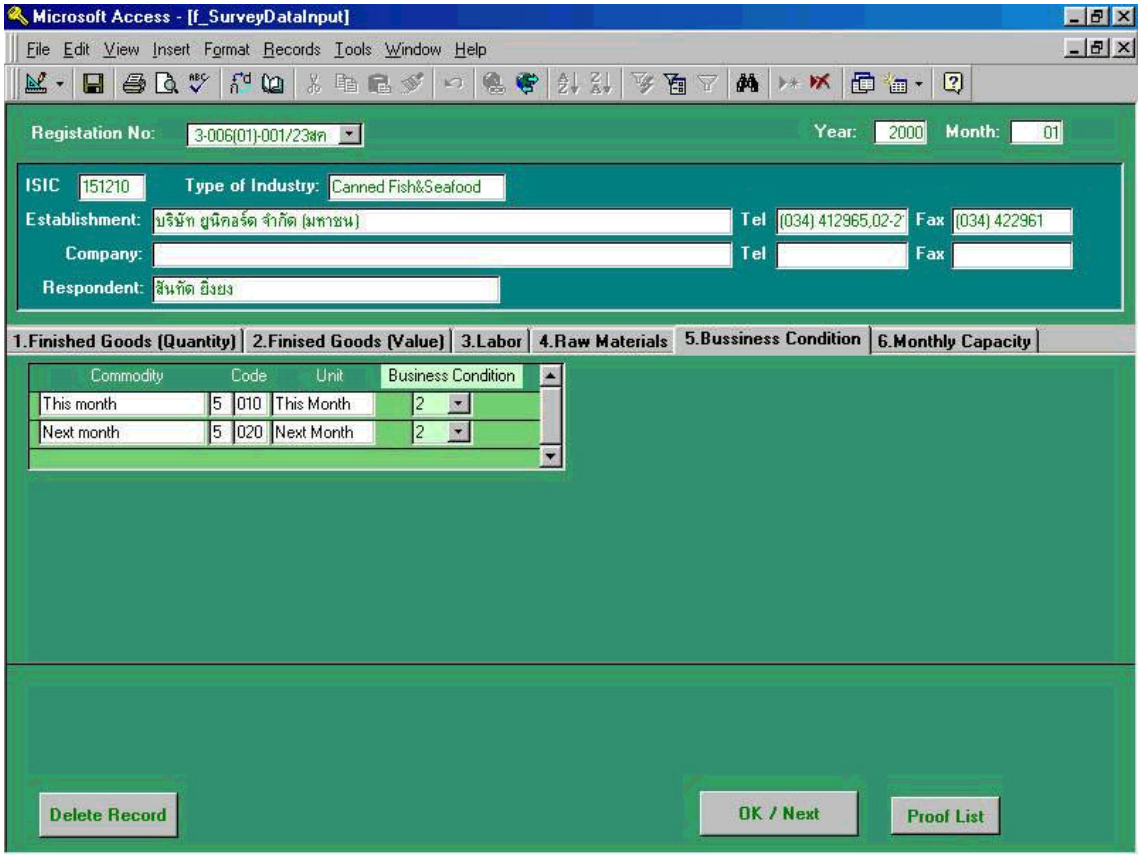
1. The commodities which appear on screen are the ones which were registered in commodity master
2. An inspector may select another establishments by directly input the **" Reg No. "** or select from the list
3. If the enumerator wants to continue with the next action (function), please press **" OK / Next "** button so that the Main Menu screen appears
4. To delete the record, please press **" Delete Record "** button

Please go back to main menu for the next **" collection status "** to check the status of the respondents.

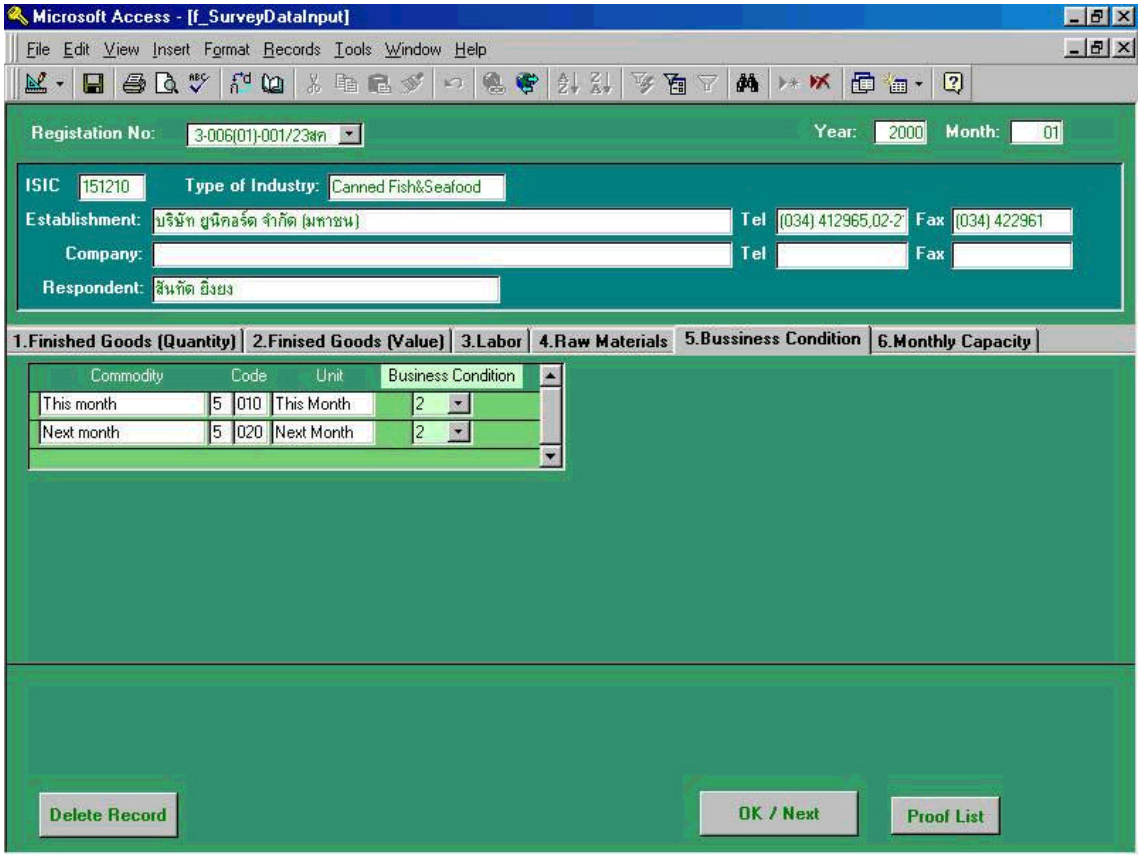
22. Update / Delete Process (4)



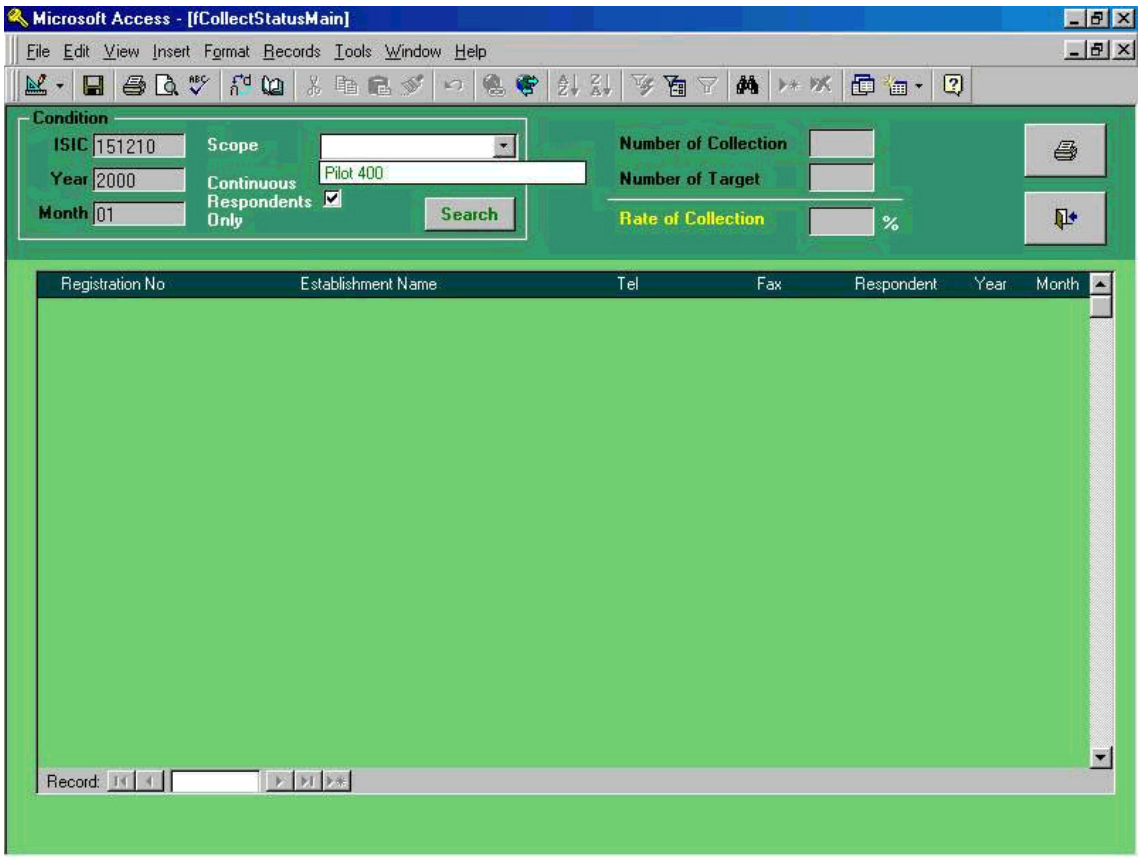
23. Update / Delete Process (5)



24. Update / Delete Process (6) (* Capacity)



25-1. Checking Collection Status(1)



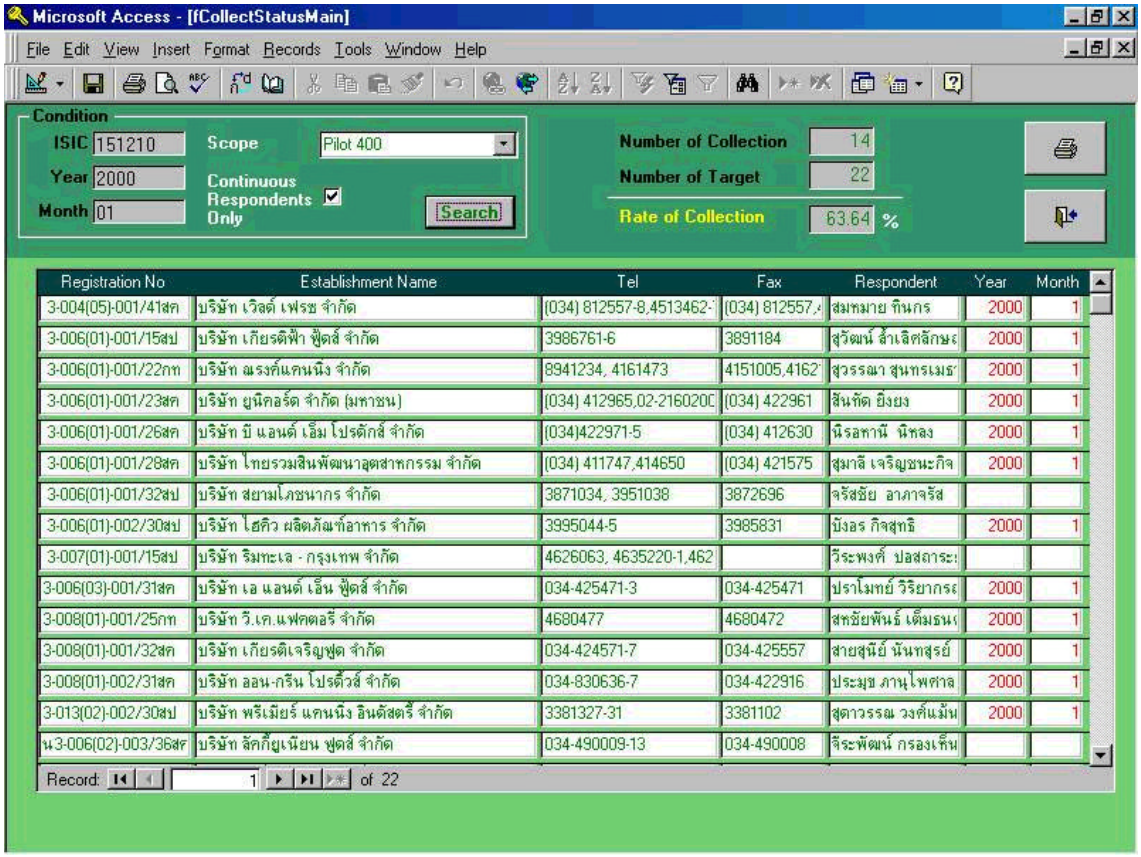
When user click the **" Collection Status "**, Screen 17, command button in the main menu screen, above screen will be shown in his computer.

By looking at the screen, users are able to confirm the collection status of the questionnaire from the respondents. (Rate of collection by individual business establishment)

Please note that those business establishments who responded to the questionnaire should be marked so in the cell of **" Year "** and **" Month "**.

To exit from the above screen to main menu, please click arrow mark in the right bottom corner of the screen.

25-2. Checking Collection Status(2)



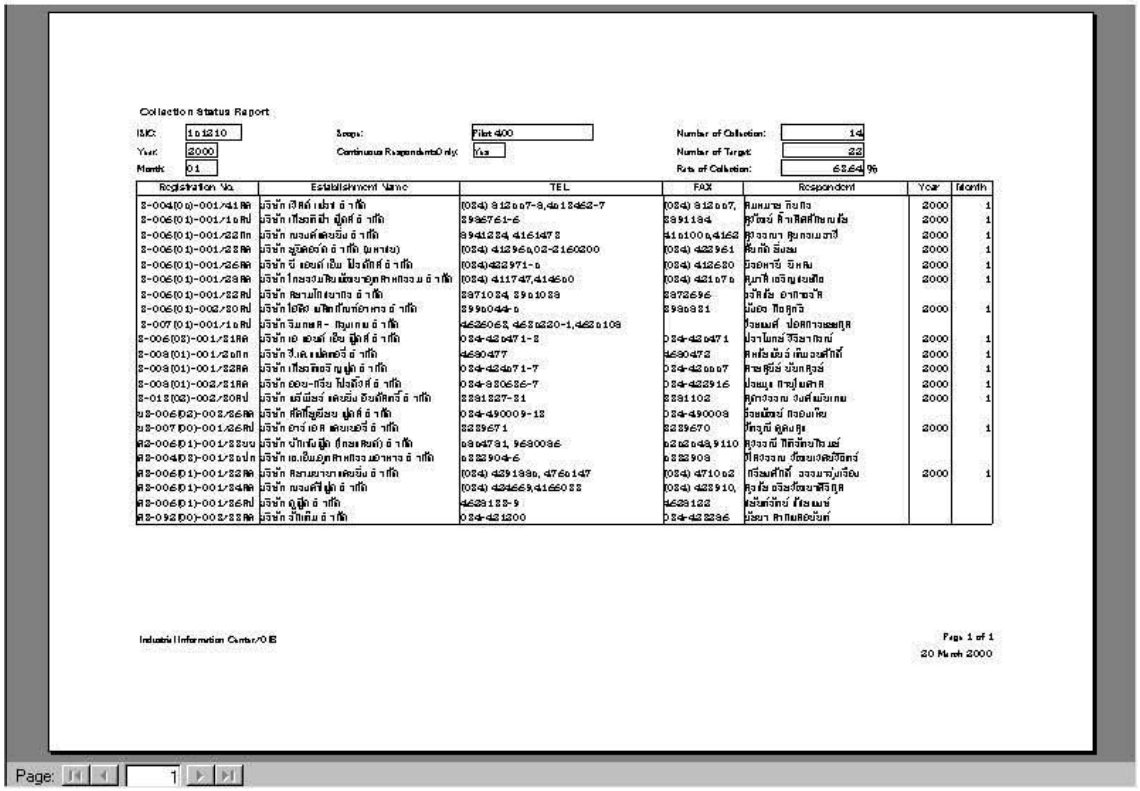
In the previous screen 17, when the users selected a particular type of industry's collection status, let's say, **" ISIC "** 151210, **" Year "** 2000, **" Month "** January, "Survey Scope" Pilot 400 are chosen in this case, above screen will appear. If the square window of the right side of **" Continuous Respondents only "** has been checked marked, all the status of collection of the questionnaires responded from those business establishments continuously responded will appear. Above screen is actual one appeared when these process is taken. If the user would like to get status of **" Number of Collection "**, **" Number of Targets ",** and **" Rate of collection "**, it can be automatically calculated and these status will be shown in the right center of the upper screen.

The **" Search "** command shown in the left center of above screen will list up both those establishments who continuously and discontinuously responded to the questionnaire.

Please note that in **“ Year ”** and **“ Month ”** column above screen 25-2 showing 2000 and 1 respectively are input data for those who responded to the questionnaires and contents of their responses are already input. No indications in the column means either the questionnaires have not received or data are not input at this moment.

25-3. Checking Collection Status(3)

If the user clicks the printer icon in the previous page (right upper corner), preview screen shown in below will appear, and prints out all collection status. These samples are listed in the following pages.



Collection Status Report

IMC: 101210 Seqs: Pilot 400 Number of Collection: 14
Year: 2000 Continuous Respondents Only: Yes Number of Target: 22
Month: 01 Rate of Collection: 63.64 %

Registration No.	Establishment Name	TEL	FAX	Respondent	Year	Month
2-004(01)-001/41ค	บริษัท เวิลด์ แฟร์ จำกัด	(034) 812xx7-8,4x13462-7	(034) 812xx7,	คุณหมาย กิมกิว	2000	1
2-005(01)-001/16ส	บริษัท เกียรติมั่น ผู้ผลิต จำกัด	2936761-6	2891184	คุณวิชัย ตั้งเกียรติกิจมั่น	2000	1
2-005(01)-001/22ก	บริษัท กรงเล็บเหยี่ยว จำกัด	8941234, 4161473	4161004,4162	คุณวรณา คุ้มกองเมฆาวี	2000	1
2-005(01)-001/23ค	บริษัท ซูมิคอร์ด จำกัด (มหาชน)	(034) 412965,02-2160200	(034) 422961	คุณกิติ ลิ่มสม	2000	1
2-005(01)-001/26ค	บริษัท ซี แอนด์ เอ็น โปรดักส์ จำกัด	(034)422971-5	(034) 412620	นิรอหารี่ นิหลัน	2000	1
2-005(01)-001/28ค	บริษัท โกลเวงมหิมพัฒนาอุตสาหกรรม จำกัด	(034) 411747,414560	(034) 421075	คุณวิสิ เธริญเจษฎ์	2000	1
2-005(01)-001/32ส	บริษัท สยามโกลบอล จำกัด	2971034, 2901023	2872695	นรวิทัย อาภาชรัศ		
2-005(01)-002/30ส	บริษัท ไอซิง มาร์เก็ตติ้งบริการ จำกัด	2990044-5	2980831	มัณฑิ ทิอศุกวิ	2000	1
2-007(01)-001/15ส	บริษัท จิมเทค R- กรุงเทพ จำกัด	4626062, 463x220-1,462x108		ว่ายแมค์ ปอศการแซกุล		
2-006(02)-001/21ค	บริษัท เอ แอนด์ เอ็น ผู้ผลิต จำกัด	034-426471-2	034-426471	ปราโมทย์ วิจิยาภิญญ์	2000	1
2-008(01)-001/20กก	บริษัท ซี.เค.เอ็นเตอร์ จำกัด	4630477	4630472	ศิลปัยยัง จำเนียรศักดิ์	2000	1
2-008(01)-001/22ค	บริษัท เกียรติยิ่งวิญญ์ผู้ผลิต จำกัด	034-426471-7	034-426007	ศิรชศุนีย์ บันทศุวงศ์	2000	1
2-008(01)-002/21ค	บริษัท ออย-ทรีย โปรดักส์ จำกัด	034-830636-7	034-422916	ปรพนุช ทิรปุณศาร	2000	1
2-013(02)-002/20ส	บริษัท แอ็ดเวิร์ค เคอร์เน็ล อิเล็กทริค จำกัด	2281327-31	2281102	ศุภักวิรวณ วงศ์เผ็ดเกษ	2000	1
ข2-006(02)-002/26ค	บริษัท ทีทีไฟบ์เบอร์ ผู้ผลิต จำกัด	034-490009-12	034-490008	ว้อยแม็กซ์ ทิรอ่อนเกียว		
ข2-007(00)-001/26ส	บริษัท อาร์.เอ.ที เคอร์เนอรี่ จำกัด	2289671	2289670	วิศกุณี ดุดุลกุล	2000	1
ค2-006(01)-001/22บ	บริษัท นำโทันผู้ผลิต (ไทยแลนด์) จำกัด	6904731, 9630036	62x2x48,9110	ศุวิวรณี ไทิลิ่งทยาไนเซอร์		
ค2-004(03)-001/21ปก	บริษัท เอ.เย็นอุตสาหกรรมอาหาร จำกัด	6232904-6	6232903	ไทิสิงวรณ วังชยเจ้ศปิยิกร์		
ค2-006(01)-001/22ค	บริษัท ศิรามยานกลัดนิ่ง จำกัด	(034) 429196, 4756147	(034) 4710x2	กรีรัมศักดิ์ วรรณาพุ่มเจริญ	2000	1
ค2-006(01)-001/24ค	บริษัท กรงศรีผู้ผลิต จำกัด	(034) 424669,4165022	(034) 423910,	ศุวรัช ธรัชวัชชยาสิริกุล		
ค2-006(01)-001/26ส	บริษัท ผู้ผลิต จำกัด	4629133-9	4629122	ศุธิมาร์กิรัช ปิรัชเมษ์		
ค2-092(00)-002/22ค	บริษัท จำกัดเค็ม จำกัด	034-421200	034-422296	ปรียา ศาทิมศิลป์ชัยพร์		

Industrial Information Center/OIE

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Page: 1

Collection Status Report

ISIC: 151210 | Scope: Pilot 400 | Number of Collection: 13

Year: 2000 | Continuous RespondentsOnly: Yes | Number of Target: 22

Month: 01 | Rate of Collection: 59.09 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-004(05)-001/41สค	บริษัท เวิลด์ เฟรช จำกัด	(034) 812557-8,4513462-7	(034) 812557,	สมหมาย ทินกร		
3-006(01)-001/15สป	บริษัท เกียรติฟ้า ฟู้ดส์ จำกัด	3986761-6	3891184	สุวัฒน์ ล้ำเลิศลักษณชัย	2000	1
3-006(01)-001/22กท	บริษัท ณรงค์แคนนิ่ง จำกัด	8941234, 4161473	4151005,4162	สุวรรณา สุนทรเมธาวี	2000	1
3-006(01)-001/23สค	บริษัท ยูนิคอร์ด จำกัด (มหาชน)	(034) 412965,02-2160200	(034) 422961	สันทัด ยิ่งยง	2000	1
3-006(01)-001/26สค	บริษัท บี แอนด์ เอ็ม โปรดักส์ จำกัด	(034)422971-5	(034) 412630	นิรอหานี นิหลง	2000	1
3-006(01)-001/28สค	บริษัท ไทยรวมสินพัฒนาอุตสาหกรรม จำกัด	(034) 411747,414650	(034) 421575	สุมาลี เจริญชนะกิจ	2000	1
3-006(01)-001/32สป	บริษัท สยามโกชนากร จำกัด	3871034, 3951038	3872696	จรัสชัย อากาจรัส		
3-006(01)-002/30สป	บริษัท ไฮดิว ผลิตภัณฑ์อาหาร จำกัด	3995044-5	3985831	บังอร กิจสุทธิ	2000	1
3-007(01)-001/15สป	บริษัท ริมทะเล - กรุงเทพ จำกัด	4626063, 4635220-1,4625108		วีระพงศ์ ปอสการะยะกุล		
3-006(03)-001/31สค	บริษัท เอ แอนด์ เอ็น ฟู้ดส์ จำกัด	034-425471-3	034-425471	ปราโมทย์ วิริยากรณ์	2000	1
3-008(01)-001/25กท	บริษัท วี.เค.แฟคตอรี่ จำกัด	4680477	4680472	สหชัยพันธ์ เต็มธนศักดิ์	2000	1
3-008(01)-001/32สค	บริษัท เกียรติเจริญฟูด จำกัด	034-424571-7	034-425557	สายสุนีย์ นันทสุรย์	2000	1
3-008(01)-002/31สค	บริษัท ออน-กรีน โปรดิ้วส์ จำกัด	034-830636-7	034-422916	ประมุข ภานุไพศาล	2000	1
3-013(02)-002/30สป	บริษัท พรีเมียร์ แคนนิ่ง อินดัสตรี้ จำกัด	3381327-31	3381102	สุดาวรรณ วงศ์แม้นเทพ	2000	1
น3-006(02)-003/36สค	บริษัท ลัคกี้ยูเนียน ฟูดส์ จำกัด	034-490009-13	034-490008	จีระพัฒน์ กรองเห็น		
น3-007(00)-001/26สป	บริษัท อาร์ เอส แคนเนอรี่ จำกัด	3239671	3239670	วัตรุณี ดูดงสุข	2000	1
ศ2-006(01)-001/33นบ	บริษัท บักเซ้งฟู้ด (ไทยแลนด์) จำกัด	5854781, 9680086	5252548,9110	สุวรรณี กิติรัตนภิรมย์		
ศ3-004(03)-001/35ปท	บริษัท เจ.เอ็ม.อุตสาหกรรมอาหาร จำกัด	5332904-6	5332908	วิไลวรรณ วัฒนเวศน์วิจิตร์		
ศ3-006(01)-001/32สค	บริษัท สยามนานาแคนนิ่ง จำกัด	(034) 4291885, 4765147	(034) 471052	เกรียงศักดิ์ ธรรมารุ่งเรือง	2000	1
ศ3-006(01)-001/34สค	บริษัท ณรงค์ซีฟูด จำกัด	(034) 424669,4166033	(034) 423910,	สุรชัย จริยวัฒนาศิริกุล		
ศ3-006(01)-001/36สป	บริษัท ดูฟู้ด จำกัด	4628133-9	4628122	ชยันต์รัตน์ ชัยพงษ์		
ศ3-092(00)-003/33สค	บริษัท รักเต็ม จำกัด	034-421200	034-423286	นัยนา ลากผลอนันต์		

Collection Status Report

ISIC: 155310
Year: 2000
Month: 01

Scope: Pilot 400
Continuous RespondentsOnly: Yes

Number of Collection: 8
Number of Target: 8
Rate of Collection: 100.00 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-019(02)-001/19กท	บริษัท บุญรอดบริวเวอรี่ จำกัด	6694900 (7124)	6695451	สุจิตรา เทพชนะ	2000	1
3-019(02)-001/36ปท	บริษัท บุญรอดบริวเวอรี่ จำกัด	5817700	5815221	กฤติกา ปฐมไพบูลย์	2000	1
3-019(02)-001/36อย	บริษัท คาร์ลสเบอร์ก บริวเวอรี่ (ประเทศไทย)	(035) 289367	(035) 289371	ทนงศักดิ์ โอสถานนท์	2000	1
3-019(02)-001/37ปท	บริษัท ไทยอมฤตบริวเวอรี่ จำกัด	9613540-8	9613586	ไพศาล เรืองทอง	2000	1
3-019(02)-001/37อย	บริษัท เบียร์ไทย (1991) จำกัด	(035) 289333-47	(035) 289371	ทนงศักดิ์ โอสถานนท์	2000	1
3-019(02)-001/38นบ	บริษัท ไทยเอเชีย แปซิฟิค บริวเวอรี่ จำกัด	9855001-9	9855023	วราภร เนตรน้อย	2000	1
ศ3-020(01)-001/34ซม	บริษัท บุญรอดบริวเวอรี่ จำกัด	6694900 (7120)	6695451	นงนุช เด็กบำรุง	2000	1
ศ3-020(01)-001/36ขก	บริษัท ขอนแก่นบริวเวอรี่ จำกัด	043-346556-85	043-346588	สนทยา มานะดี	2000	1

Collection Status Report

ISIC: 171110 Scope: Pilot 400 Number of Collection: 24

Year: 2000 Continuous RespondentsOnly: Yes Number of Target: 28

Month: 01 Rate of Collection: 85.71 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-022(01)-001/19สค	บริษัท นครหลวงเส้นใยสังเคราะห์ จำกัด (มหา	(034) 830922-4	(034) 424624	วิชาญ อุทิสานนท์	2000	1
3-022(01)-001/22สป	บริษัท โรงงานส่งเสริมไทยอุตสาหกรรม จำกัด	2590123-8 ต่อ 52	2586275	กันติยา จีนเปีย	2000	1
3-022(01)-001/28ปท	บริษัท ที.ที.แอล.อุตสาหกรรม จำกัด	5330319	5330102	สุปราณี ปักปิ่นเพชร	2000	1
3-022(01)-001/33นฐ	บริษัท นันยางเท็กซ์ไทล์ จำกัด	4206423-6,4204911-2	4206422	บุญชู อรุณรัตน์	2000	1
3-022(01)-001/33ปท	บริษัท แบงกอกดอมเท็กส์ จำกัด	5981139-40, 5981145-6	5872338	วิไลวรรณ กาญจนวิลาสกุล	2000	1
3-022(01)-001/34นบ	บริษัท ไทยสปินนิ่งอินดัสทรี จำกัด	9268722-5, 5971473, 5971088	5971466	กนกกร ทนาวรวัฒน์	2000	1
3-022(01)-001/34สค	บริษัท ฟาร์อีสต์เทคสไทลส์ จำกัด	(034)471358, 471858	(034)472820	ชาญวิทย์ พึ่งจิตติสานติ์	2000	1
3-022(01)-002/12กท	บริษัท อุตสาหกรรมทอผ้าไทย จำกัด	523-6261	531-9112	พูนลาภ ตันหยงมาศ	2000	1
3-022(01)-002/21กท	บริษัท ยูเนี่ยนอุตสาหกรรมด้าย จำกัด	5300511 ต่อ 5631, 5396135	5396134	รัชฎา ฤทธิ์เรือง	2000	1
3-022(01)-002/34สป	บริษัท สุวรรณภูมิเอ็นเตอร์ไพรส์ จำกัด	3122498-502, 3122422, 3122293	3122293	ธีรนันท์ อาริยะธรรม	2000	1
3-022(01)-002/35สป	บริษัท โรงงานผ้าไทย จำกัด (มหาชน)	7038484	3871983	บุญชัย ศิริธีราเจษฎ์		
3-022(01)-002/38นฐ	บริษัท กาวรอุตสาหกรรมการทอ จำกัด	4290596-9	4290291	สุชาดา ศรีพิพัฒน์	2000	1
3-022(01)-003/29สค	บริษัท นูรพาการทอ จำกัด	4201210	4200558	สมใจ พึ่งบาง	2000	1
3-022(01)-003/36สป	บริษัท เหรียญหัวสิ่งทอ จำกัด	4637046,4644085	8158762	อดิศร พัฒนาปัญญาสัตย์	2000	1
3-022(01)-004/33สป	บริษัท แอลฟ่าสปินนิ่ง จำกัด	4250217-21,4250396-4	4250450	เสมอศักดิ์ ภาสิระกุล	2000	1
3-022(01)-005/20กท	บริษัท นำไกรเคมี จำกัด	3291213-4, 4329145	3291217	ประดิษฐ์ ชัยมนัส	2000	1
3-022(01)-006/34สป	บริษัท วิเชียรเท็กซ์ไทล์ อินดัสตรี้ จำกัด	4643345-54, 4643559-6, 4642352	4643354	วราภรณ์ ทองเย็น	2000	1
3-028(01)-003/26สป	บริษัท ไทยรุ่งเท็กซ์ไทล์ จำกัด	3372327, 3372340	3372329-30	อภิชาติ โกมลนิรมิต	2000	1
3-022(01)-001/22สค	บริษัท สุวรรณอุตสาหกรรมการทอ จำกัด	4201265,4200034	4203626	ลมัย ชุนเที่ยงธรรม	2000	1
3-022(01)-001/35นฐ	บริษัท ซี เอ็น เค ปั่นทอ จำกัด	8952581-3	4168832	พรทิพย์ เพิ่มพูล	2000	1
3-022(01)-001/39สป	บริษัท แพรกษา เท็กซ์ไทล์ จำกัด	3240731-3	7036784	ศิริลักษณ์ ตั้งเฉลิมกุล	2000	1
3-022(01)-003/38นฐ	บริษัท สยามโมเดอร์นเท็กซ์ จำกัด	034-200033	034-255052	ประสิทธิ์ จงศิริ		
3-022(02)-001/13ปท	บริษัท ไทยดูราโบ จำกัด	5168421-4	5168073	อนุรักษ์ นราวงศ์		
3-022(02)-002/14สป	บริษัท เอราวัณ สิ่งทอ จำกัด	7543604-5	3841618	กนกพร ถิ่งกังวาลน้อย	2000	1
3-024(00)-001/18นฐ	บริษัท เจริญสวัสดิ์ไยเทียมยีต จำกัด	034-321452-4,287674-7	3211451	พิทักษ์ เจริญสวัสดิ์ศิริ		
ซ3-022(01)-010/34สป	บริษัท ไทยอุดมปั่นด้าย จำกัด	4611455-60	4611174	เชวง อุดมชาญ	2000	1
น3-028(01)-001/26สป	บริษัท เอส เอส วี เอ จำกัด	3239800-2	3239735	กฤษณา วรรณวิจิตร	2000	1
น3-044(00)-001/15สป	บริษัท เอเซียไฟเบอร์ จำกัด (มหาชน)	3239096	3239577	รชฎ กอดีวี	2000	1

Collection Status Report

ISIC: 173010 | Scope: Pilot 400 | Number of Collection: 24

Year: 2000 | Continuous RespondentsOnly: Yes | Number of Target: 33

Month: 01 | Rate of Collection: 72.73 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-028(01)-001/23สค	บริษัท ไทยการ์เมนต์ เอ็กซปอร์ต จำกัด	9605957,4201011	9605972-3	วลัยภรณ์ พงษ์ขจรกิจการ	2000	1
3-028(01)-001/27สป	บริษัท แฟงบราเตอร์สโฮลดิ้ง (ประเทศไทย) จำ	3126142-7	3128745	สมยศ แก้วมณี	2000	1
3-028(01)-001/29สป	บริษัท เอ็ม แอนด์ อาร์ เท็กซ์ไทลส์ จำกัด	3381324-8, 7080542-4	3381159	จรินทร์ เอี่ยมเอกลักษณ์	2000	1
3-028(01)-001/31นฐ	บริษัท ที.ยู.ดับบลิว.เท็กซ์ไทล์ จำกัด	4200787-8	8119653	มาซายูคิ ชิมาคุระ	2000	1
3-028(01)-001/36สค	บริษัท เรียนศิลป์การทอ จำกัด	4200239, 4203793-4	4203819	ทวีสิทธิ์ เลี้ยงประยูร	2000	1
3-028(01)-001/37ปจ	บริษัท ไทยการ์เมนต์เอ็กซปอร์ต จำกัด (ปราจี	(037) 208091-8	(037) 208089	พัฒนะ ฉันทชาติ		
3-028(01)-001/38นว	บริษัท บอดี้ แฟชั่น (ประเทศไทย) จำกัด	(056) 367492, 376422	(056) 367192	ชัชวาล ศรีวิจิตรโชติ	2000	1
3-028(01)-002/32นฐ	บริษัท จินตนาแอพพาเรล จำกัด	4468000 ต่อ 515	4468034	สมชาย วิทย์ไพสิฐสินต์	2000	1
3-028(01)-003/35กท	บริษัท ทองไทยการทอ จำกัด	4.31005e+006	4.209e+006	นรินทร์ ธีรชุมพล	2000	1
3-028(01)-005/33สป	บริษัท ที.เอ็ม.การ์เมนท์ จำกัด	3853188-9	3853146	อัจฉรา อนุกาพเจริญผล	2000	1
3-028(01)-007/27สป	บริษัท ยามาเกน แอ็พแพเร็ล จำกัด	3872272-3	3870655	ซูมากิ ฮาร่า	2000	1
3-028(01)-009/40กท	บริษัท อินทิเมทแฟชั่น จำกัด	8134041-5	8134046	มานพ มานะสกุลกิจ		
3-028(01)-014/16กท	บริษัท เครื่องนุ่งห่มสำเร็จรูป จำกัด	3793230-40	3794455	วรวิทย์ สุวรรณฉัตรชัย		
3-028(01)-014/19กท	บริษัท แอนนาการ์เมนท์ จำกัด	4651099, 4669901, 4651866	4721226	ทวีสิทธิ์ เลี้ยงประยูร	2000	1
3-028(01)-105/29กท	บริษัท เอช แอนด์ บี อินเตอร์เท็กซ์ จำกัด	2940091-4 ต่อ 238	2942443,6837	สมจิตต์ เอี่ยมกิจสัมฤทธิ์		
3-028(01)-113/30กท	บริษัท อาเซี่ยนการ์เม้นท์ จำกัด	4518579	4518586	สุปรียา หลิมสุนทร	2000	1
3-028(01)-116/30กท	บริษัท แซมป์เอช จำกัด	6898240-9 ต่อ 107	291-2537	โสภาพร บุญยศักดิ์เสรี	2000	1
3-028(01)-127/32กท	บริษัท นันยางการทออุตสาหกรรม จำกัด	4212180-9	4211067	ชนกกานต์ ปรียาตั้งกิจ	2000	1
3-028(01)-188/26กท	บริษัท โรจน์ธนสาร จำกัด	7429408, 7429227, 3312792, 331002	3316138	เพชรสุดา บัวแก้ว		
3-028(01)-228/25กท	บริษัท จูกิ การ์เมนท์ จำกัด	4204844, 4203793-4	4671484,4670	ทวีสิทธิ์ เลี้ยงประยูร	2000	1
3-024(00)-001/24กท	ห้างหุ้นส่วนจำกัดโชคดีการ์เม้นท์ (1980)	2372112,2365666	2372112	วิวัฒน์ ช่วงศุวนิช	2000	1
3-024(00)-003/14กท	บริษัท โรงงานไทยแลนด์นิตติ้ง จำกัด	3811955	3913976	ปรีชา ธนสารสมบัติ		
3-024(00)-011/18กท	บริษัท เยนเนอรัล นิตส์ (กรุงเทพ) จำกัด	3980136-8	3984625	ภาวนา แสงอรุณ	2000	1
3-028(01)-016/34กท	บริษัท ซัยบูรพา จำกัด	4158797,8940090-7	4150603	นวลอนงค์ ฉายาทัพ		
3-028(01)-022/36นบ	บริษัท ซาลอม จำกัด	5710577,5173892-3	9208529	สุเมธ ตังคนิวาส	2000	1
3-028(01)-066/34กท	บริษัท โฟร์สตาร์ การ์เม้นท์ แอนด์ เท็กไทล์ จำกั	2130410-11	2128323	วราภรณ์ พันธุ์สุรินทร์	2000	1
3-028(01)-107/26กท	บริษัท แกรนด์ นิตแวร์ จำกัด	8972540-4	8972545	สุริยง เหล่าประภัสสร	2000	1
จ3-028(01)-002/41นฐ	บริษัท โนเวลตี้ แอพพาเรล จำกัด	034-225681-9	034-225690	สมศักดิ์ รุ่งเรืองพลางกูร	2000	1
จ3-028(01)-003/37สป	บริษัท สแตนดาร์ดการ์เม็นท์ จำกัด	7034810-6, 7035892-3	7034817-8	ชวลิต จันทรทิม		

ISIC: 173010
Year: 2000
Month: 01

Scope: Pilot 400
Continuous RespondentsOnly: Yes

Number of Collection: 24
Number of Target: 33
Rate of Collection: 72.73 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
จ3-028(01)-004/36บฐ	บริษัท สามพรานแฟชั่นเฮ้าส์ จำกัด	(034) 322562	(034) 322563	จุฑามาศ ทับทิม		
จ3-028(01)-005/36บฐ	บริษัท ฮาร์ทแอนด์มายด์แอพพาเรล จำกัด	4207957-8, 4312174	4312180	ยงนำ สิทธิพงษ์พร	2000	1
น3-028(01)-003/34สป	บริษัท บอดี้ แฟชั่น (ประเทศไทย) จำกัด	3153283-98	3153311	เดวิด เฟลมิ่ง	2000	1
ส3-028(01)-001/34อย	บริษัท ท็อป ฟอร์ม บราเซีย จำกัด	(035) 261203	(035) 261043	Larry Ho	2000	1

Collection Status Report

ISIC: 181010 Scope: Pilot 400 Number of Collection: 59

Year: 2000 Continuous RespondentsOnly: Yes Number of Target: 82

Month: 01 Rate of Collection: 71.95 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-028(01)-001/15ปท	บริษัท ไทยเอโร่ จำกัด	5168831-5	5169475	ธันวา บุญซ้อน	2000	1
3-028(01)-001/16นบ	บริษัท ไทยการ์เมนต์เอ็กซ์ปอร์ต จำกัด	9605957-60	9605971-3	วลัยกรณ์ พงษ์ขจรกิจการ	2000	1
3-028(01)-001/23สค	บริษัท ไทยการ์เมนต์ เอ็กซปอร์ต จำกัด	9605957,4201011	9605972-3	วลัยกรณ์ พงษ์ขจรกิจการ	2000	1
3-028(01)-001/25ปท	ห้างหุ้นส่วนจำกัด ชินวัตร แฟชั่นเฮ้าส์	5291227-8, 2583529	2584274, 529	วิวัฒน์ หิรัญฤทธิ์		
3-028(01)-001/27นบ	บริษัท วาไทย อุตสาหกรรม จำกัด (มหาชน)	5730788,9844130 ต่อ 142	5734283,5744	เบ็ญจวรรณ ลากประเสริฐ		
3-028(01)-001/31ชบ	บริษัท เอส อาร์ ดับบลิว การ์เมนท์ จำกัด	(038) 480176	(038) 480606	นารี ฉัตรเฉลิม	2000	1
3-028(01)-001/32นบ	บริษัท ปอมแฟชั่น จำกัด	5802634-5	5897512	พัชรี นิลสกาพร	2000	1
3-028(01)-001/33ขก	บริษัท เอ็น.เค.แอมพาเรล จำกัด	(043) 382359	(043) 382350-	เกรียงไกร จิระพรกุล	2000	1
3-028(01)-001/33ฉช	บริษัท ไทย ไบโอเท็กซ์ จำกัด	(038) 532786-8	(038) 532191-	ไจสิริ รอดแก่นทรัพย์	2000	1
3-028(01)-001/37ปจ	บริษัท ไทยการ์เมนต์เอ็กซปอร์ต จำกัด (ปราจี	(037) 208091-8	(037) 208089	พัฒนะ ฉันทชาติ	2000	1
3-028(01)-001/38สป	บริษัท ไทยฮามิลตัน จำกัด	7406271-5	3371659	วัลลภ แสงวิลัย	2000	1
3-028(01)-001/39พจ	บริษัท บุญทวีการ์เมนท์ จำกัด	(056) 611615,5422627-8	(056) 611615,	พกาพันธ์ อินต๊ะแก้ว	2000	1
3-028(01)-001/39ลพ	บริษัท วาโก้ลำพูน จำกัด	(053) 537652-3	(053) 560045	สมบูรณ์ แสงสุวรรณเลิศ	2000	1
3-028(01)-001/39สค	บริษัท ฮอร์ลี่ การ์เม้นท์ จำกัด	8103971-5	4312032	เฉลียว งามตรง	2000	1
3-028(01)-001/39สท	บริษัท ณัฐโชติ อินดัสตรีส์ จำกัด	(055) 641700	(055) 642296	กวัลย์ ธัญญาสุทธิพันธ์	2000	1
3-028(01)-001/41พช	บริษัท วรพรการ์เมนท์ จำกัด	4370884,01-8376884	4390239	สมภาค วิชัยศรี		
3-028(01)-002/31กท	บริษัท ไอเรียนตอลการ์เมนท์ จำกัด	3793072-8	3793963	สุวรรณา ศรีสุพรรณกาวร	2000	1
3-028(01)-002/31นฐ	บริษัท แอพพาเรล แอ๊ฟวีนิว จำกัด	4204894,8139762-3	4202693	ปวีร์ ตรีศรีวรเวชย์	2000	1
3-028(01)-002/37กท	บริษัท พี.เค.การ์เมนท์ (อิมปอร์ต-เอ็กซ์ปอร์ต)	3291050-6	3291059	สุชาติ น้อยพิทักษ์	2000	1
3-028(01)-003/21สป	บริษัท ยูเนี่ยนการ์เม้นท์ จำกัด	3239285-6	3239181	มาลุริชญ์ บุณยสมิต		
3-028(01)-003/33นบ	บริษัท ไนซ์ แอพพาเรล จำกัด	5890123	9525980	มนตรี ศิริคุณ	2000	1
3-028(01)-004/14กท	บริษัท ฮาร่า (ไทยแลนด์) จำกัด	2113035,2123611	2121780	ธนดล ศิวดลอนุวัฒน์	2000	1
3-028(01)-005/40กท	บริษัท ฟาร์อีสท์การทออุตสาหกรรม จำกัด	4212809-14	4212817	ไสพิส เจริญจิต	2000	1
3-028(01)-007/39กท	บริษัท โชคอารี แอพพาเรล จำกัด	5869087	5872779	พัชรี ป้อมแก้ว	2000	1
3-028(01)-008/31สป	บริษัท แฟงบราเดอร์สโฮลดิ้ง (ประเทศไทย) จำ	3128792-7	3128745	สมยศ แก้วมณี	2000	1
3-028(01)-008/32กท	บริษัท สมาร์ทดี้ การ์เม้นท์ จำกัด	4340173-8, 4348268	4348261	สุมิตร ณัฐดุรงค์	2000	1
3-028(01)-009/40กท	บริษัท อินทิเมทแฟชั่น จำกัด	8134041-5	8134046	มานพ มานะสกุลกิจ	2000	1
3-028(01)-029/21กท	บริษัท เซ็นทรัลการ์เมนท์แฟคทอรี่ จำกัด	3819603, 3920221, 3924276, 392387	3918677	อารมณ์ วัฒนสังสุทธิ์	2000	1
3-028(01)-029/27กท	บริษัท ประชาอาภรณ์ จำกัด (มหาชน)	6821900-7	2945159	สุวัฒน์ พาณิชเลิศ		

ISIC: 181010 Scope: Pilot 400 Number of Collection: 59

Year: 2000 Continuous RespondentsOnly: Yes Number of Target: 82

Month: 01 Rate of Collection: 71.95 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-028(01)-030/23กท	บริษัท สยามซูพีเรียร์ชิลค์ดอร์ปอร์เรชั่น จำกัด	3924243 ต่อ 12	3918368	Asish Kumardutta	2000	1
3-028(01)-031/30กท	ห้างหุ้นส่วนจำกัด ยงสง่า	6377391-9	6377400	สง่า มานัสทน	2000	1
3-028(01)-044/35กท	บริษัท สากร การ์เมนท์ จำกัด	3318083	3318231	แน่งน้อย ซ้อนทอง	2000	1
3-028(01)-052/26กท	บริษัท ธนูลักษณ์ จำกัด (มหาชน)	2950911-9 ต่อ 172	2943918, 294	สุพจน์ ภควรวุฒิ	2000	1
3-028(01)-056/34กท	ห้างหุ้นส่วนจำกัด โรจน์อะแพเร็ล	6750932-4	2129717	ขวัญจิต ปลื้มจิตต์		
3-028(01)-057/31กท	บริษัท เอลต้า จำกัด	3291018-9, 3290099	3291247	กานดา วีระพิชญ์เกษม		
3-028(01)-066/29กท	บริษัท เอส.เค.การ์เม้นท์ (1995) จำกัด	6898810 ต่อ 541,2911599	2912421,2911	สุวรรณี รุ่งทองคำกุล	2000	1
3-028(01)-071/29กท	ห้างหุ้นส่วนจำกัด ดี.ซี.มาร์เก็ตติ้ง	3315064-7	3310933	ปิยวรรณ รุ่งพิธยพิเชษ	2000	1
3-028(01)-071/31กท	ห้างหุ้นส่วนจำกัด คริสติน่าการ์เมนท์	5735342	5735342	เบญจวรรณ สื่อมงคลสันต์	2000	1
3-028(01)-082/32กท	บริษัท คาสเซ่อร์พีคโฮลดิ้งส์ จำกัด (มหาชน)	4550300	4550358-9	พรทิพย์ ศรีพิทักษ์สกุล	2000	1
3-028(01)-086/29กท	บริษัท ยูนิคการ์เม้นท์อิมปอร์ตเอ็กซ์ปอร์ต จำกั	3190407	3199525	ละออง หะนนท์	2000	1
3-028(01)-095/29กท	บริษัท วรพรการ์เม้นท์ จำกัด	4370884, 4391119, 4383355, 01-618	4390239	สมภาค วิชัยศรี		
3-028(01)-096/35กท	ห้างหุ้นส่วนจำกัด เอเซียไทยโปรดั๊ก	376-0405	3760363-4	สุรีย์พร ริ้วประเสริฐ		
3-028(01)-100/27กท	บริษัท ปิ่ปปิน อินเตอร์เนชั่นแนล อี.แอนด์.ไอ. จ	3215059, 3215076-7	3213741	ศิริศิลป์ วณาศรีวิสัย		
3-028(01)-105/29กท	บริษัท เอช แอนด์ บี อินเตอร์เท็กซ์ จำกัด	2940091-4 ต่อ 238	2942443,6837	สมจิตต์ เอี่ยมกิจสัมฤทธิ์	2000	1
3-028(01)-112/29กท	บริษัท ลิเบอร์ตี้ การ์เมนท์ จำกัด	5419309-16 ต่อ 22	5419308	กังวาน บุญเลิศฟ้า	2000	1
3-028(01)-113/30กท	บริษัท อาเซี่ยนการ์เม้นท์ จำกัด	4518579	4518586	สุปรียา หลิมสุนทร		
3-028(01)-116/30กท	บริษัท แซมป์เอช จำกัด	6898240-9 ต่อ 107	291-2537	โสภาพร บุญยศักดิ์เสรี	2000	1
3-028(01)-137/34กท	บริษัท เฟิร์ส โมเดอร์น จำกัด	4160071	4157130, 896	ฟู ศิริวิบูลย์	2000	1
3-028(01)-144/35กท	บริษัท สมอทองการ์เมนท์ จำกัด	4558771-3	4558774	กฤษณา กิจไพบูลย์ทวี	2000	1
3-028(01)-152/35กท	บริษัท ไทยเอลเฟ จำกัด	4202663-4, 4204250-1, 4204692	4202663	พนิดา โกมลวิลาศ	2000	1
3-028(01)-154/35กท	บริษัท การ์เม้นท์ เทค อินเตอร์เนชั่นแนล จำกัด	9191396	5179539	ชมงาม กระพามงคล		
3-028(01)-156/31กท	บริษัท คงคาอุตสาหกรรมการทอ จำกัด	8090001-10	8090823	อุษณีย์ ลิ		
3-028(01)-169/25กท	บริษัท เวิลด์แวร์อินดัสตรี จำกัด	4270245	4277333	เกศรา กาญจนธำรงค์กุล		
3-028(01)-173/31กท	บริษัท แดพเพอร์ เจ็นเนอรัล อะแพเร็ล จำกัด	2594760	2593837	อรณิชา ดาบสินชัยกุล	2000	1
3-028(01)-182/32กท	บริษัท เวซวิวัฒน์ จำกัด (โรงงาน 1)	5175890-3	9147522	สุวิทย์ พลเดช		
3-028(01)-188/28กท	บริษัท ไหมทอง จำกัด	2120025-6	2124893	ประยูร เลาหบุญญากูล	2000	1
3-028(01)-193/32กท	บริษัท ไทยวายบีที จำกัด	3323417-20	3330927	สมจิตร ดีศรีบ้าน	2000	1
3-028(01)-194/34กท	บริษัท นวอาภรณ์ จำกัด	8076715-26	4441345	เพลินพิศ ฉัตรวัฒนาสกุล		
3-028(01)-208/24กท	บริษัท วีณาการ์เมนต์ จำกัด	2234661	2254265	สุวพร	2000	1

ISIC: 181010 Scope: Pilot 400 Number of Collection: 59

Year: 2000 Continuous RespondentsOnly: Yes Number of Target: 82

Month: 01 Rate of Collection: 71.95 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-028(01)-292/23กท	บริษัท เมย์ฟิลด์ จำกัด	4340150	4335698,4337	ประเสริฐ ไชเทียมวงศ์	2000	1
3-024(00)-002/30สป	บริษัท นิทเพ็น แฟชั่น นิทเทอร์ส จำกัด	3840594,3840605	3840605, 384	สมพร บานเย็น	2000	1
3-024(00)-022/29กท	บริษัท เพรสซิเดนท์ นิตติ้ง แอนด์ การ์เม้นท์ จำ	2124671	2123938	อุไรรัตน์ แสงวัฒนโรจน์		
3-028(01)-001/33ชม	บริษัท เชียงใหม่ ไท้ฮั้ว อินดัสทรี จำกัด	053-331374,332151-2	332150	ภาวินี คำมา	2000	1
3-028(01)-002/27ชม	บริษัท ตันติยานันท์ การ์เม้นท์ จำกัด	053-245666,245782	053-245456	ทศพร พนัสอำพล	2000	1
3-028(01)-022/36นบ	บริษัท ซาลอม จำกัด	5710577,5173892-3	9208529	สุเมธ ตังคนิวาส	2000	1
3-028(01)-028/36กท	บริษัท ขนิษฐา อินเตอร์เนชั่นแนล จำกัด	651-6593-5	253-3477	ดุษฎี ขันทา	2000	1
3-028(01)-066/34กท	บริษัท โฟร์สตาร์ การ์เม้นท์ แอนด์ เท็กไทล์ จำกั	2130410-11	2128323	วรากรณ์ พันธุ์สุรินทร์	2000	1
3-028(01)-166/35กท	บริษัท เหรียญเจริญการ์เม้นท์ จำกัด	4160037	4153476	วรุณยุพา เหรียญเจริญสุข	2000	1
3-028(01)-167/26กท	บริษัท เยอร์บีร่า จำกัด	6740533-6	2125251	วิวัฒน์ ฉัตรนันทเวช		
3-028(01)-171/26กท	บริษัท แดนดี้ จำกัด	4380202-5	4392020	จุรี สุวรรณรัตน์	2000	1
3-028(01)-228/23กท	บริษัท ชนะกิจ การ์เมนท์ จำกัด	4373118,4374181,4394225	4372781	ธวัช รังสีสิริกัด	2000	1
จ3-028(01)-001/37อย	บริษัท แฟชั่น เอ็กซ์เพรส จำกัด	(035) 223181-4	(035) 223183	Wai Yee Lee	2000	1
จ3-028(01)-002/38ตก	บริษัท แอลฟ่า แอลพาเรล จำกัด	(055) 554071-5, 545361	(055) 554090	นุญเลิศ ใจเกตุ	2000	1
จ3-028(01)-003/37ชม	บริษัท ไทยโปรดักอินเตอร์เนชั่นแนล จำกัด	(053) 823285-6,4725680	(053) 311783,	อรัญญา เพียรภูมิพงศ์	2000	1
จ3-028(01)-003/37สป	บริษัท สแตนดาร์ดการ์เม้นท์ จำกัด	7034810-6, 7035892-3	7034817-8	ชวลิต จันทรทิม	2000	1
จ3-028(01)-004/36นฐ	บริษัท สามพรานแฟชั่นเฮ้าส์ จำกัด	(034) 322562	(034) 322563	จุฑามาศ ทับทิม	2000	1
จ3-028(01)-004/36ปจ	บริษัท วาโก้กบินทร์บุรี จำกัด	(037) 281945, 205140-2	(037) 205140-	ปรียาภรณ์ ฉัตราลิปลักษณ์		
จ3-028(01)-021/35สป	บริษัท ราชาอูชิโน จำกัด	4639566, 4630109	8175065	ทัศนี เจริญกิจสกุลชัย		
จ3-028(01)-027/35สป	บริษัท เฟรนเทกซ์ การ์เมนท์ จำกัด	7496233-7	7496239	ขวัญใจ จันดี	2000	1
น3-028(01)-001/29กท	บริษัท เยนเนอรัล โค้ตติ้งกรุ๊ป จำกัด	3260377-8	3260207	สิงห์โต อิศรางกูร ณ อยุธยา		
น3-028(01)-002/33สป	บริษัท ซันเท็กซ์ อินดัสเตรียล คอโพเรชั่น จำกัด	3231906-9	3232596	กิตติชัย จันทโรทัย		
น3-028(01)-003/34สป	บริษัท บอดี้ แฟชั่น (ประเทศไทย) จำกัด	3153283-98	3153311	เดวิด เฟลมิ่ง		

Collection Status Report

ISIC: 232010
Year: 2000
Month: 01

Scope: Pilot 400
Continuous RespondentsOnly: Yes

Number of Collection: 5
Number of Target: 6
Rate of Collection: 83.33 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-049(00)-001/13ชบ	บริษัท ไทยออยล์ จำกัด	2317000	2317089	สมชัย วงศ์วัฒนศานต์	2000	1
3-049(00)-001/15ชบ	บริษัท เอสโซ่สแตนดาร์ดประเทศไทย จำกัด	(038) 493900-9	(038) 493938	นาฏยา เสวกแก้ว	2000	1
3-049(00)-001/18ชม	ศูนย์พัฒนาปิโตเลี่ยมหาดเหนือกรมการพลังงา	(053) 452007-9,451485	(035) 451158	พล.ต.นิมิตร จารุเวศ	2000	1
3-049(00)-001/31กท	บริษัท บางจากปิโตรเลียม จำกัด (มหาชน)	3310047 ต่อ 4026	3985876	ศันสยา ประวีณพร	2000	1
3-049(00)-001/39ชบ	บริษัท ไทยลู้บเบส จำกัด (มหาชน)	(038) 766588	(038) 766533-	บัณฑิต สุขสงวน	2000	1
u3-049(00)-001/365ย	บริษัท โรงกลั่นน้ำมันระยอง จำกัด	(038) 684290	(038) 683264	สิน ไทวรรธนะ		

Collection Status Report

ISIC: 269410
Year: 2000
Month: 01

Scope: Pilot 400
Continuous RespondentsOnly: Yes

Number of Collection: 13
Number of Target: 13
Rate of Collection: 100.00 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-057(01)-001/14พบ	บริษัท ซลประทานซีเมนต์ จำกัด (มหาชน)	(032) 471526	(032) 471523	สุพงษ์ ปาติ๊บ	2000	1
3-057(01)-001/15นศ	บริษัท ปูนซีเมนต์ไทย จำกัด (มหาชน)	(075) 538222	(075) 411963	ศิระ ศรีศุกรี	2000	1
3-057(01)-001/15สบ	บริษัท ปูนซีเมนต์ไทย จำกัด (มหาชน)	(036)357105	(036)222017	พิกพ ศิริพัฒนานนท์	2000	1
3-057(01)-001/31สบ	บริษัท ปูนซีเมนต์นครหลวง จำกัด (มหาชน)	244615,253-0104	254-4448	ศุภชัย อัศวรักษ์	2000	1
3-057(01)-001/35สบ	บริษัท สระบุรีซีเมนต์ จำกัด	(036) 223237-9	(036) 223241-	ยุทธ มาริวรรณ์	2000	1
3-057(01)-001/37ลป	บริษัท ปูนซีเมนต์ไทย จำกัด (มหาชน)	(054)271500 ต่อ 243	(054)271501	สงกรานต์ ทองน่วม	2000	1
3-057(01)-001/41สบ	บริษัท ปูนซีเมนต์ไทย จำกัด (มหาชน)	(036) 287000	(036) 281218	ศรยุทธ ตันสกุล	2000	1
3-057(01)-002/36สบ	บริษัท ปูนซีเมนต์เอเซีย จำกัด	(036) 351231-6,6415600	(036) 351238-	กมลลักษณ์ เหล่าไพโรจน์	2000	1
3-057(01)-002/37นม	บริษัท สามัคคีซีเมนต์ จำกัด	(044) 136853,2166646	2152266	พัชรี สุระแสง	2000	1
3-057(01)-003/35รบ	บริษัท ไทยสกาปนา จำกัด	032-281053,01-2152742	032-281053	ปิยะดา พิริยาบรรณ์	2000	1
3-057(01)-004/35สบ	บริษัท ปูนซีเมนต์ไทย จำกัด (มหาชน)	(036)351200-19	(036)334710-	สมเกียรติ พันธุ์อนุกูล	2000	1
3-057(01)-005/34สบ	บริษัท ทีพีไอ โพลีน จำกัด (มหาชน)	(036)339111,2131039	2131035	ไวพจน์ คดบัว	2000	1
จ3-057(01)-001/15นว	บริษัท ซลประทานซีเมนต์ จำกัด (มหาชน)	(056)261725	(056)261780	ชนิษฐา เชิดชู	2000	1

Collection Status Report

ISIC: 321010
Year: 2000
Month: 01

Scope: Pilot 400
Continuous RespondentsOnly: Yes

Number of Collection: 15
Number of Target: 17
Rate of Collection: 88.24 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-072(00)-001/33ปท	บริษัท โตชิบา ดิสเพล ดีไวส์ (ประเทศไทย) จำกั	5011100-18	5011334	พิเชียร สมเชย	2000	1
3-072(00)-002/28อย	บริษัท เซอร์คิทอีเลคโทรนิคส์ จำกัด (มหาชน)	(035) 226280-9	(035) 226710,	วภาวดี ศรีอุทัย	2000	1
3-072(00)-002/34ปท	บริษัท ทีมโทรนิคส์ จำกัด	5771277, 5772350-6	5771705	จีรพงษ์ รุ่งโรจน์ชัย	2000	1
3-072(00)-002/40ปท	บริษัท โรห์ม อินทิเกรเต็ดเซมิคอนดัคเตอร์ (ไท	9092060-7	9092095	ประมวล ทรัพย์ประเสริฐ	2000	1
3-072(00)-015/23กท	บริษัท ฟิลิปส์ เซมิคอนดัคเตอร์ (ไทยแลนด์) จำ	5511052-62, 9732379-98, 5527623-	5511063-4	พิศษฐ์ ก้อนไพบูลย์	2000	1
จ3-072(00)-001/37ปท	บริษัท ซี.วาย. เทค จำกัด	9945601-5	9945600	จินตนา ภานุวรรณากร	2000	1
จ3-072(00)-007/39สป	บริษัท ยูนีแม็ค (ประเทศไทย) จำกัด	7401323-5	7401327	พงศ์เดช ระพีพันธุ์	2000	1
น3-072(00)-002/23ชบ	บริษัท ไทย ซี.อาร์.ที. จำกัด	038-490220-5	038-490238	นิรมล ศรีสุนทร	2000	1
ส3-069(00)-001/33นบ	บริษัท เอเอ็มดี (ไทยแลนด์) จำกัด	9621180	5839260-1	วิชัย นอกเมือง	2000	1
ส3-069(00)-001/33ปท	บริษัท ไซนี่ เซมิคอนดัคเตอร์ (ประเทศไทย) จำ	5011730 ต่อ 2030	5011734	สุนันทา เกตุอดิศร	2000	1
ส3-069(00)-003/34อย	บริษัท โอกิ (ประเทศไทย) จำกัด	035-330171-8	035-330179	ชวัชชัย พานิชพึ่งรัก	2000	1
ส3-072(00)-001/32ปท	บริษัท โรม อพอลโล อิเลคโทรนิคส์ (ประเทศไท	5290777-82	5292307	วีรวัฒน์ ลากปริณายก	2000	1
ส3-072(00)-001/34นบ	บริษัท เซมิคอน ดัคเตอร์ เวนเจอร์ อินเตอร์เนชั่	5745671, 5746021-3, 5741861	5745672-3	วีระ จิระชัยอารีย์		
ส3-072(00)-001/35ปท	บริษัท โตชิบา เซมิคอนดัคเตอร์ (ประเทศไทย)	5011621-32	5011643-4	ปติ อยู่สกาพร	2000	1
ส3-072(00)-002/31สป	บริษัท เจริญซากาต้า (ประเทศไทย) จำกัด	4630118	4363385	วิศรุต สุนิทู	2000	1
ส3-072(00)-002/35อย	บริษัท ซันโย เซมิคอนดัคเตอร์ (ประเทศไทย) จ	035-330116-7	035-330115	สุรพล ก่อเกิด	2000	1
ส3-072(00)-005/32ปท	บริษัท พีซีทีที จำกัด	5291803, 5291666, 5292020, 909067	5291812	สมิทร ตันติวนิจกิจ		

Collection Status Report

ISIC: 321010 Scope: Pilot 400 Number of Collection: 15

Year: 2000 Continuous RespondentsOnly: Yes Number of Target: 17

Month: 01 Rate of Collection: 88.24 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-072(00)-001/33ปท	บริษัท โตชิบา ดิสเพล ดีไวส์ (ประเทศไทย) จำกั	5011100-18	5011334	พิเชียร สมเชย	2000	1
3-072(00)-002/28อย	บริษัท เซอร์คิทอีเลคโทรนิคส์ จำกัด (มหาชน)	(035) 226280-9	(035) 226710,	วภาวดี ศรีอุทัย	2000	1
3-072(00)-002/34ปท	บริษัท ทีมโทรนิคส์ จำกัด	5771277, 5772350-6	5771705	จีรพงษ์ รุ่งโรจน์ชัย	2000	1
3-072(00)-002/40ปท	บริษัท โรห์ม อินทิเกรเต็ดเซมิคอนดัคเตอร์ (ไท	9092060-7	9092095	ประมวล ทรัพย์ประเสริฐ	2000	1
3-072(00)-015/23กท	บริษัท ฟิลิปส์ เซมิคอนดัคเตอร์ (ไทยแลนด์) จำ	5511052-62, 9732379-98, 5527623-	5511063-4	พิศษฐ์ ก้อนไพบูลย์	2000	1
จ3-072(00)-001/37ปท	บริษัท ซี.วาย. เทค จำกัด	9945601-5	9945600	จินตนา ภานุวรรณากร	2000	1
จ3-072(00)-007/39สป	บริษัท ยูนิแม็ค (ประเทศไทย) จำกัด	7401323-5	7401327	พงศ์เดช ระพีพันธุ์	2000	1
น3-072(00)-002/23ชบ	บริษัท ไทย ซี.อาร์.ที. จำกัด	038-490220-5	038-490238	นิรมล ศรีสุนทร	2000	1
ส3-069(00)-001/33นบ	บริษัท เอเอ็มดี (ไทยแลนด์) จำกัด	9621180	5839260-1	วิชัย นอกเมือง	2000	1
ส3-069(00)-001/33ปท	บริษัท โซนี่ เซมิคอนดัคเตอร์ (ประเทศไทย) จำ	5011730 ต่อ 2030	5011734	สุนันทา เกตุอดิศร	2000	1
ส3-069(00)-003/34อย	บริษัท โอกิ (ประเทศไทย) จำกัด	035-330171-8	035-330179	ชวัชชัย พานิชพึ่งรัก	2000	1
ส3-072(00)-001/32ปท	บริษัท โรม อพอลโล อิเลคโทรนิคส์ (ประเทศไท	5290777-82	5292307	วีรวัฒน์ ลาภปริณายก	2000	1
ส3-072(00)-001/34นบ	บริษัท เซมิคอน ดัคเตอร์ เวนเจอร์ อินเตอร์เนชั่	5745671, 5746021-3, 5741861	5745672-3	วีระ จิระชัยอารีย์		
ส3-072(00)-001/35ปท	บริษัท โตชิบา เซมิคอนดัคเตอร์ (ประเทศไทย)	5011621-32	5011643-4	ปิติ อยู่สกาพร	2000	1
ส3-072(00)-002/31สป	บริษัท เจริญซากาต้า (ประเทศไทย) จำกัด	4630118	4363385	วิศรุต สุนิทู	2000	1
ส3-072(00)-002/35อย	บริษัท ซันโย เซมิคอนดัคเตอร์ (ประเทศไทย) จ	035-330116-7	035-330115	สุรพล ก่อเกิด	2000	1
ส3-072(00)-005/32ปท	บริษัท พีซีทีที จำกัด	5291803, 5291666, 5292020, 909067	5291812	สมิทร ตันติวนิจกิจ		

Collection Status Report

ISIC: 323010 Scope: Pilot 400 Number of Collection: 14

Year: 2000 Continuous RespondentsOnly: Yes Number of Target: 14

Month: 01 Rate of Collection: 100.00 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-072(00)-002/33ปท	บริษัท ทอมสัน เทเลวิชั่น (ประเทศไทย) จำกัด	5011022-23	5011534, 501	ธัญญา ผลอนันต์	2000	1
3-072(00)-012/33กท	บริษัท เอ็ม.ซี.เค.อินดัสทรีส์ จำกัด	3266720-22	3266723	ศิวพร วงศ์จันทร์เพ็ญ	2000	1
2-072(00)-001/34ปท	บริษัท เจวีซี อิเลคโทรนิคส์ (ประเทศไทย) จำกัด	5293112-4	5293113	ชาตรี พอกประโคน	2000	1
3-071(00)-001/14นบ	บริษัท ไทยโตชิบาอุตสาหกรรม จำกัด	9512120-9	5897028	ฐิติพร ปานทะผลิน	2000	1
3-072(00)-001/35อย	บริษัท แม็กซอน ชิสเต็มส์ (ประเทศไทย) จำกัด	035-330018-24	035-330014-5	สันติชัย คำแหง	2000	1
3-082(00)-001/32ปท	บริษัท คาร์ตัน ออปทิคัล (สยาม) จำกัด	5292346-8	5292338	อำไพ เฉลิมฤทธิ์	2000	1
จ3-072(00)-001/35นฐ	บริษัท ชาร์ป เทพนคร จำกัด	034-389200-4	034-337950,3	อรัญญา ปัญจนวพร	2000	1
จ3-072(00)-004/39สป	บริษัท มัทสุชิตะคอมมิวนิเคชั่นอินดัสเตรียล (ป	7081111	7080874	วรพุช อร่ามพงศ์	2000	1
น3-072(00)-001/19กท	บริษัท ไทยอีเลคโทรนิค อุตสาหกรรม จำกัด (ม	5181472	5171937	เดธนา ชุตินาวา	2000	1
ส3-072(00)-001/33ปท	บริษัท เจวีซี แมนูแฟคเจอริ่ง (ประเทศไทย) จำกั	5292105-9	5292241-3	กมล ตรีวิบูลย์	2000	1
ส3-072(00)-002/32ชบ	บริษัท ไทยซัมซุง อิเลคโทรนิคส์ จำกัด	038-480065-9 ต่อ 623	038-480271	สมชาย มาศรังสรรค์	2000	1
ส3-072(00)-002/32ปท	บริษัท นิตสุโกะ-ไทย จำกัด	5292112-4	5292115	จุลเกลียง	2000	1
ส3-072(00)-003/32ปท	บริษัท ทาคาคอม (ประเทศไทย) จำกัด	5292124-9, 9094604-6, 9094617	5292129	วิไลพร เทพพันธุ์	2000	1
ส3-072(00)-004/31ปท	บริษัท มิซึกิ อีเล็คโทรนิคส์ (ประเทศไทย) จำกัด	5290756-62	5293325	รัชนี ประสงค์สิน	2000	1

Collection Status Report

ISIC: 341010
Year: 2000
Month: 01

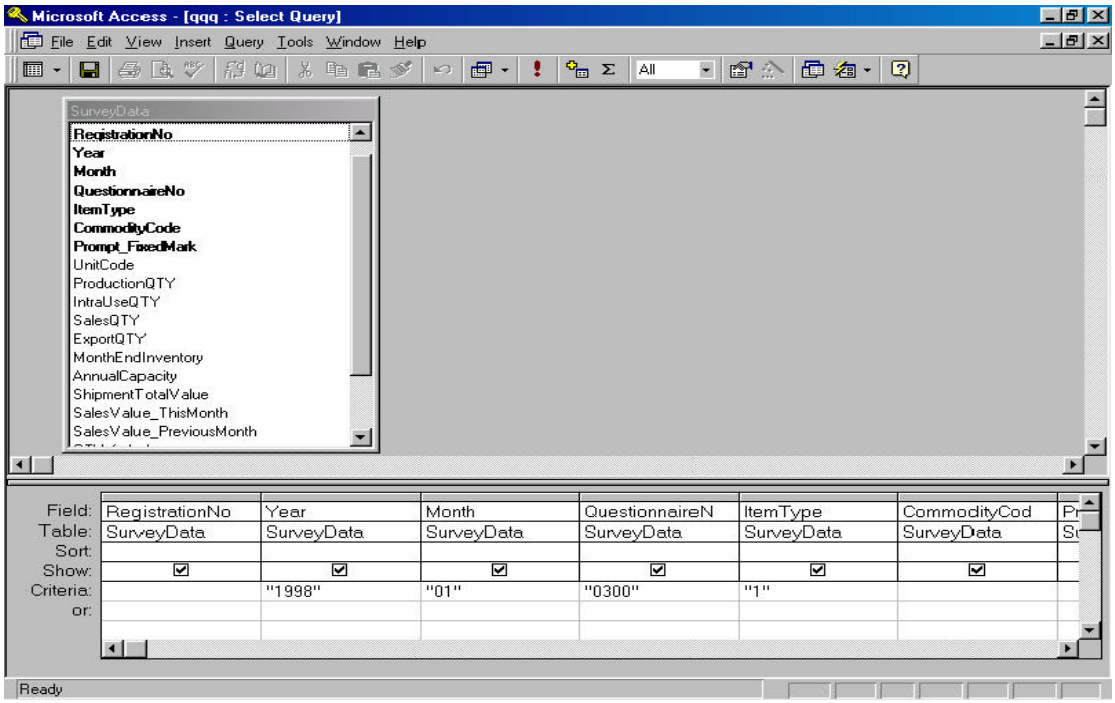
Scope: Pilot 400
Continuous RespondentsOnly: Yes

Number of Collection: 13
Number of Target: 15
Rate of Collection: 86.67 %

Registration No.	Establishment Name	TEL.	FAX	Respondent	Year	Month
3-077(01)-001/18สป	บริษัท โตโยต้า มอเตอร์ ประเทศไทย จำกัด	3861089	3861717	สุรวินย์ แสวงดี		
3-077(01)-001/19สป	บริษัท ไทย-สวีดิช แอสเซมบลีย์ จำกัด	3381931-4,7071721-8	3381935	ณัฏฐลี ยุทธาศนี	2000	1
3-077(01)-001/20สป	บริษัท สยามนิสสัน ออโตโมบิล จำกัด	3128487	3128476	สุชาติ ชั้นบุญไส	2000	1
3-077(01)-001/38สป	บริษัท ธนบุรีประกอบรถยนต์ จำกัด	3842889, 7579544-51	3846253	วันชัย อ่องเอี่ยม		
3-077(01)-001/39อย	บริษัท ฮอนด้าคาร์ส์ แมนูแฟคเจอริ่ง (ประเทศไ	(035) 330999, 331000-13	(035) 330974-	พัชราภรณ์ ไกรโต	2000	1
3-077(01)-002/13สป	บริษัท ไทยฮีโน่อุตสาหกรรม จำกัด	7583114, 7583209, 7583315	3843708, 384	มานพ นาคบุตร	2000	1
3-077(01)-003/26สป	บริษัท สยามกลการและนิสสัน จำกัด	3128459-60, 3128475-6	3128476	สุชาติ ชั้นบุญไส	2000	1
3-077(01)-004/32กท	บริษัท ไทยรุ่งเจนเนอรัล มอเตอร์ จำกัด	4201328, 4310071-2	8120844, 420	อรนุช พืชมงคล	2000	1
3-077(01)-005/17กท	บริษัท ไทยรุ่งยูเนี่ยนคาร์ จำกัด (มหาชน)	4310071-2 ต่อ 376	8120844	วัชราภรณ์ มัณฑะจิตร	2000	1
3-077(01)-006/15สป	บริษัท อีซูซุมอเตอร์ (ประเทศไทย) จำกัด	3942541 ต่อ 1801	3844480	พนม ลิ่มยกไล้	2000	1
3-077(01)-007/15สป	บริษัท ธนบุรีประกอบรถยนต์ จำกัด	3842889	3846253	วันชัย อ่องเอี่ยม	2000	1
3-077(01)-007/17กท	บริษัท วาย.เอ็ม.ซี.แอสเซมบลี้ จำกัด	2168888	2159022	เมตตา บุญอากาศ	2000	1
u3-077(01)-001/23กท	บริษัท เอ็ม เอ็ม ซี สิทธิผล จำกัด	3260142-4, 3210140, 7394923	3260144-5	สมศักดิ์ พันธุ์สวัสดิ์	2000	1
u3-077(01)-001/37ฉช	บริษัท โตโยต้า มอเตอร์ ประเทศไทย จำกัด	(038) 575100	(038) 575186	สุรวินัย แสวงดี	2000	1
u3-077(01)-012/15กท	บริษัท บางชันเยนเนอเรลเอเซมบลี่ จำกัด	5170022-7	5181485	สมคิด ชื่นเวช	2000	1

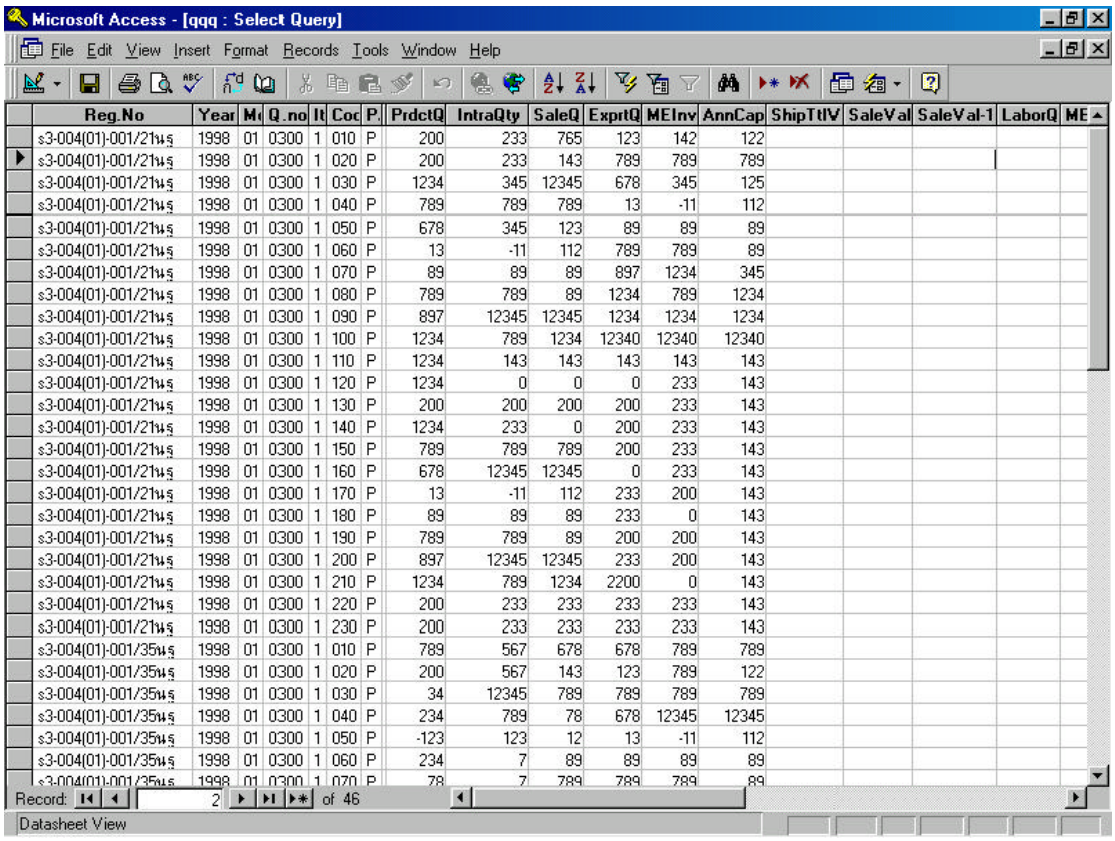
26. For System Operators Only (1)

Next two screens are for systems operators only and ordinary users of this system are not supposed to aware at all.



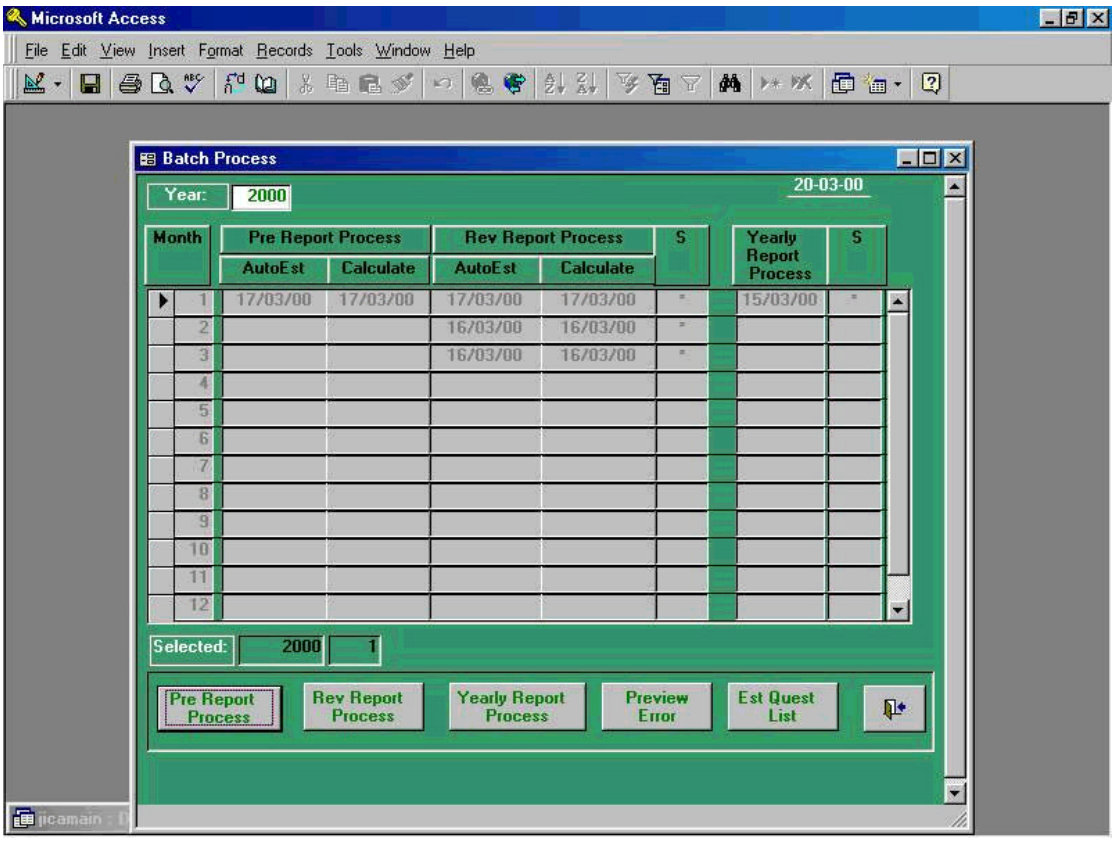
User are able to set the retrieve condition on what they want to get using Excel file. The image shown above is a setting screen of **“** Data Extraction for Excel **”**. Users can input the retrieve condition in the **“ Criteria ”** field at the bottom row. Also the user is able to select the targeted item from the database diagram in the upper left side of this screen image. (About the detailed method of using this function, please refer to the Manual Book of Microsoft Access.)

27. For System Operators Only (2)



This image is a sample of **“ ExtractedData ”** by the Access - system. And this **“ ExtractedData ”** will be create in the **“ ExtractedData ”** folder as a Excel file which is named **“ DataExtract1.txt ”**.

28. Batch Execution Screen



The screen shown above is main menu for processing of both preliminary report and revised report. The users are able to create these two reports by repeating automated calculation process using above function shown in the screen. And by depending on the requirement came out from the users, they are able to repeat execution of **" Update "**, and **" Delete "** function by returning to above main menu screen. Then they are able to go back to **" Index Calculation Process "**.

Followings are detailed explanation of each key shown above, namely **" Pre Report Process "** and **" Rev Report Process "** shown in left lower corner of above screen.

(1) **" Pre Report Process "** --- **" Year "** should be selected and input manually and **" Month "** should also be selected. In this case, January has been selected by clicking **" 1 "** in "Month" column in the upper left corner of above screen. The user will be noticed that after these process is done, the arrow will show up in the left side of **" 1 "** of **" Month "** column. After all these process has been done,

click **“ Pre Report Process ”** in down left corner of above screen. The process of preparation for making preliminary report will start automatically.

(2) **“ Rev Report Process ”** --- **“ Year ”** should be selected and input manually and **“ Month ”** should also be selected. In this case, January has been selected by clicking **“ 1 ”** in **“ Month ”** column in the upper left corner of above screen. The user will be noticed that after these process is done, the arrow will show up in the left side of **“ 1 ”** of **“ Month ”** column. After all these process has been done, click **“ Pre Report Process ”** in down left corner of above screen. The process of preparation for making preliminary report will start automatically.

After each process has been taken, the users will be able to receive irregular data list, screen 29(1), by clicking “Preview Error” shown in down center of screen 28.

After each process of “Pre Report Process” and “Rev Report Process” in Screen 28, and if users click “Est Quest List”, Screen 29(3) will show up. This is the list of business establishments of which did not respond to the questionnaire, or establishments whose questionnaire data had not been input, upon the time of extraction of both preliminary and revised report, even those establishments are indicated as continuously responded companies.

It is important to note the followings;

(1) **“ Yearly Report Process ”** shown in Screen 28 should be executed to carry out yearly revision, which is reflection of additional data correction to annual report in case each monthly processing for each month could not meet with the on time, after a year passed.

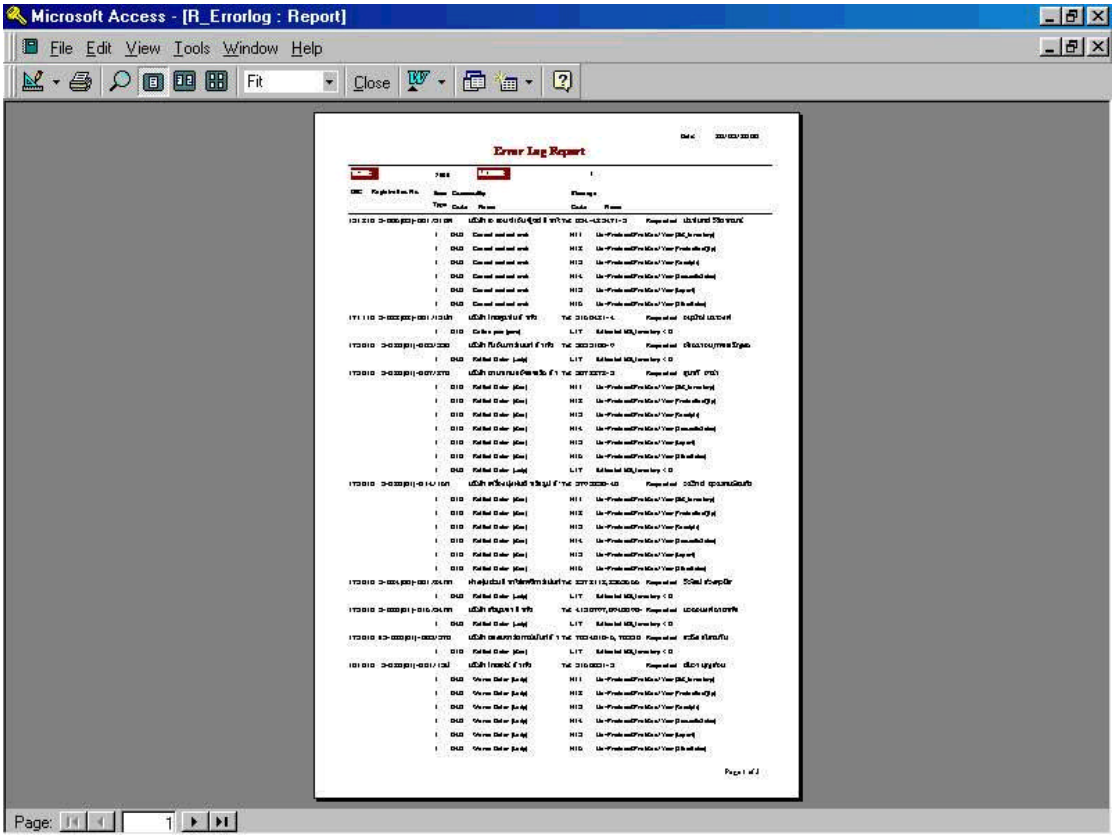
(2) Above process should be taken after completion of each monthly processing, which are processing of issuing both preliminary and revised reports.

(3) When execute above process (1), it should be done from January to December in that order by each month.

(4) In above case, the process of index calculation can be done, however, the process of automatic calculation cannot be processed.

(5) In each process indicated above (1) through (5), asterisk mark (*) will appear in case some revision work has been done to current month data after completion of the process.

29-1. Warning List for the Batch Process (1) – List of Estimated Questionnaire -



Above **"Print Preview Screen"** of **"Error Log Report"**. By looking at above screen, users will carry out operation such as revision and re-entry of data in case data for previous month was missing or the data was estimation value after the result was automated calculation.

Date: 17/03/2000

Error Log Report

YEAR: 2000 MONTH: 1

ISIC	Registration No.	Item Type	Commodity Code	Commodity Name	Message Code	Message Name
151210	3-006(03)-001/31สค	บริษัท เอ แอนด์ เอ็น ฟู้ดส์ จำกัด Tel: 034-425471-3			Respondent	ปราโมทย์ วิริยากรณ์
		1	040	Canned seafood crab	N11	Un-Produced:Pre Mon/Year(BM_Inventory)
		1	040	Canned seafood crab	N12	Un-Produced:Pre Mon/Year(ProductionQty)
		1	040	Canned seafood crab	N13	Un-Produced:Pre Mon/Year(Receipts)
		1	040	Canned seafood crab	N14	Un-Produced:Pre Mon/Year(DomesticSales)
		1	040	Canned seafood crab	N15	Un-Produced:Pre Mon/Year(Export)
		1	040	Canned seafood crab	N16	Un-Produced:Pre Mon/Year(OtherSales)
171110	3-022(02)-001/13ปท	บริษัท ไทยดูราโบ จำกัด		Tel: 5168421-4	Respondent	อนุรักษ์ นราวงศ์
		1	010	Cotton yarn(pure)	L17	Estimated ME_Inventory < 0
173010	3-028(01)-005/33สป	บริษัท ที.เอ็ม.การ์เมนท์ จำกัด		Tel: 3853188-9	Respondent	อัจฉรา อนุภาพเจริญผล
		1	040	Knitted Outer (Lady)	L17	Estimated ME_Inventory < 0
173010	3-028(01)-007/27สป	บริษัท ยามาเกน แอ็พแพเร็ล จำ		Tel: 3872272-3	Respondent	ซูมากิ ฮาร่า
		1	010	Knitted Outer (Men)	N11	Un-Produced:Pre Mon/Year(BM_Inventory)
		1	010	Knitted Outer (Men)	N12	Un-Produced:Pre Mon/Year(ProductionQty)
		1	010	Knitted Outer (Men)	N13	Un-Produced:Pre Mon/Year(Receipts)
		1	010	Knitted Outer (Men)	N14	Un-Produced:Pre Mon/Year(DomesticSales)
		1	010	Knitted Outer (Men)	N15	Un-Produced:Pre Mon/Year(Export)
		1	010	Knitted Outer (Men)	N16	Un-Produced:Pre Mon/Year(OtherSales)
		1	040	Knitted Outer (Lady)	L17	Estimated ME_Inventory < 0
173010	3-028(01)-014/16กท	บริษัท เครื่องนุ่งห่มสำเร็จรูป จำ		Tel: 3793230-40	Respondent	วรวิทย์ สุวรรณฉัตรชัย
		1	010	Knitted Outer (Men)	N11	Un-Produced:Pre Mon/Year(BM_Inventory)
		1	010	Knitted Outer (Men)	N12	Un-Produced:Pre Mon/Year(ProductionQty)
		1	010	Knitted Outer (Men)	N13	Un-Produced:Pre Mon/Year(Receipts)
		1	010	Knitted Outer (Men)	N14	Un-Produced:Pre Mon/Year(DomesticSales)
		1	010	Knitted Outer (Men)	N15	Un-Produced:Pre Mon/Year(Export)
		1	010	Knitted Outer (Men)	N16	Un-Produced:Pre Mon/Year(OtherSales)
173010	3-028(01)-014/19กท	บริษัท แอนนาการ์เมนท์ จำกัด		Tel: 4651099, 4669901,	Respondent	ทวีสิทธิ์ เลี้ยงประยูร
		4	010	Knit fabrics Cotton	N41	Un-Produced:Pre Mon/Year(RwMt_MEInventory)
		4	020	Knit fabrics Woolen	N41	Un-Produced:Pre Mon/Year(RwMt_MEInventory)
		4	030	Knit fabrics Synthe	N41	Un-Produced:Pre Mon/Year(RwMt_MEInventory)
173010	3-024(00)-001/24กท	ห้างหุ้นส่วนจำกัดโชคดีการ์เม้นท์		Tel: 2372112,2365666	Respondent	วิวัฒน์ ช่วงศุวนิช
		1	040	Knitted Outer (Lady)	L17	Estimated ME_Inventory < 0
173010	3-028(01)-016/34กท	บริษัท ชัยบูรพา จำกัด		Tel: 4158797,8940090-	Respondent	นวลอนงค์ ฉายาทัพ
		1	040	Knitted Outer (Lady)	L17	Estimated ME_Inventory < 0
173010	จ3-028(01)-003/37สป	บริษัท สแตนดาร์ดการ์เม็นท์ จำ		Tel: 7034810-6, 70358	Respondent	ชวลิต จันทรทิม
		1	010	Knitted Outer (Men)	L17	Estimated ME_Inventory < 0
173010	น3-028(01)-003/34สป	บริษัท บอดี้ แฟชั่น (ประเทศไทย)		Tel: 3153283-98	Respondent	เดวิด เฟลมิ่ง
		4	010	Knit fabrics Cotton	N41	Un-Produced:Pre Mon/Year(RwMt_MEInventory)
		4	020	Knit fabrics Woolen	N41	Un-Produced:Pre Mon/Year(RwMt_MEInventory)

Error Log Report

YEAR: 2000 MONTH: 1

ISIC	Registration No.	Item Type	Commodity Code	Commodity Name	Message Code	Message Name
181010	3-028(01)-001/15ปท		บริษัท ไทยเอโร่ จำกัด	Tel: 5168831-5	Respondent	ธันวา บุญช่อน
		1	040	Woven Outer (Lady)	N11	Un-Produced:Pre Mon/Year(BM_Inventory)
		1	040	Woven Outer (Lady)	N12	Un-Produced:Pre Mon/Year(ProductionQty)
		1	040	Woven Outer (Lady)	N13	Un-Produced:Pre Mon/Year(Receipts)
		1	040	Woven Outer (Lady)	N14	Un-Produced:Pre Mon/Year(DomesticSales)
		1	040	Woven Outer (Lady)	N15	Un-Produced:Pre Mon/Year(Export)
		1	040	Woven Outer (Lady)	N16	Un-Produced:Pre Mon/Year(OtherSales)
		2	040	Woven Under (Lady)	N21	Un-Produced:Pre Mon/Year(ShipmentValue)
181010	3-028(01)-001/41พช		บริษัท วรพรการ์เมนท์ จำกัด	Tel: 4370884,01-83768	Respondent	สมภาค วิชัยศรี
		1	010	Woven Outer (Men)	N11	Un-Produced:Pre Mon/Year(BM_Inventory)
		1	010	Woven Outer (Men)	N12	Un-Produced:Pre Mon/Year(ProductionQty)
		1	010	Woven Outer (Men)	N13	Un-Produced:Pre Mon/Year(Receipts)
		1	010	Woven Outer (Men)	N14	Un-Produced:Pre Mon/Year(DomesticSales)
		1	010	Woven Outer (Men)	N15	Un-Produced:Pre Mon/Year(Export)
		1	010	Woven Outer (Men)	N16	Un-Produced:Pre Mon/Year(OtherSales)
181010	3-028(01)-095/29กท		บริษัท วรพรการ์เมันท์ จำกัด	Tel: 4370884, 4391119,	Respondent	สมภาค วิชัยศรี
		1	010	Woven Outer (Men)	L17	Estimated ME_Inventory < 0
		1	020	Woven Under (Men)	L17	Estimated ME_Inventory < 0
		1	040	Woven Outer (Lady)	L17	Estimated ME_Inventory < 0
		1	060	Woven Other (Lady)	N11	Un-Produced:Pre Mon/Year(BM_Inventory)
		1	060	Woven Other (Lady)	N12	Un-Produced:Pre Mon/Year(ProductionQty)
		1	060	Woven Other (Lady)	N13	Un-Produced:Pre Mon/Year(Receipts)
		1	060	Woven Other (Lady)	N14	Un-Produced:Pre Mon/Year(DomesticSales)
		1	060	Woven Other (Lady)	N15	Un-Produced:Pre Mon/Year(Export)
		1	060	Woven Other (Lady)	N16	Un-Produced:Pre Mon/Year(OtherSales)
181010	3-028(01)-113/30กท		บริษัท อาเซี่ยนการ์เมันท์ จำกัด	Tel: 4518579	Respondent	สุปรียา หลิมสุนทร
		1	040	Woven Outer (Lady)	N11	Un-Produced:Pre Mon/Year(BM_Inventory)
		1	040	Woven Outer (Lady)	N12	Un-Produced:Pre Mon/Year(ProductionQty)
		1	040	Woven Outer (Lady)	N13	Un-Produced:Pre Mon/Year(Receipts)
		1	040	Woven Outer (Lady)	N14	Un-Produced:Pre Mon/Year(DomesticSales)
		1	040	Woven Outer (Lady)	N15	Un-Produced:Pre Mon/Year(Export)
		1	040	Woven Outer (Lady)	N16	Un-Produced:Pre Mon/Year(OtherSales)
181010	3-028(01)-156/31กท		บริษัท คงคาอุตสาหกรรมการท	Tel: 8090001-10	Respondent	อุษณีย์ ลิ
		1	040	Woven Outer (Lady)	L17	Estimated ME_Inventory < 0
181010	3-028(01)-182/32กท		บริษัท เวชวิวัฒน์ จำกัด (โรงงาน	Tel: 5175890-3	Respondent	สุวิทย์ พลเดช
		1	010	Woven Outer (Men)	L17	Estimated ME_Inventory < 0
181010	3-028(01)-194/34กท		บริษัท นวอาภรณ์ จำกัด	Tel: 8076715-26	Respondent	เพลินพิศ ฉัตรวัฒนาสกุล
		1	010	Woven Outer (Men)	L17	Estimated ME_Inventory < 0
		1	020	Woven Under (Men)	L17	Estimated ME_Inventory < 0

Date: 17/03/2000

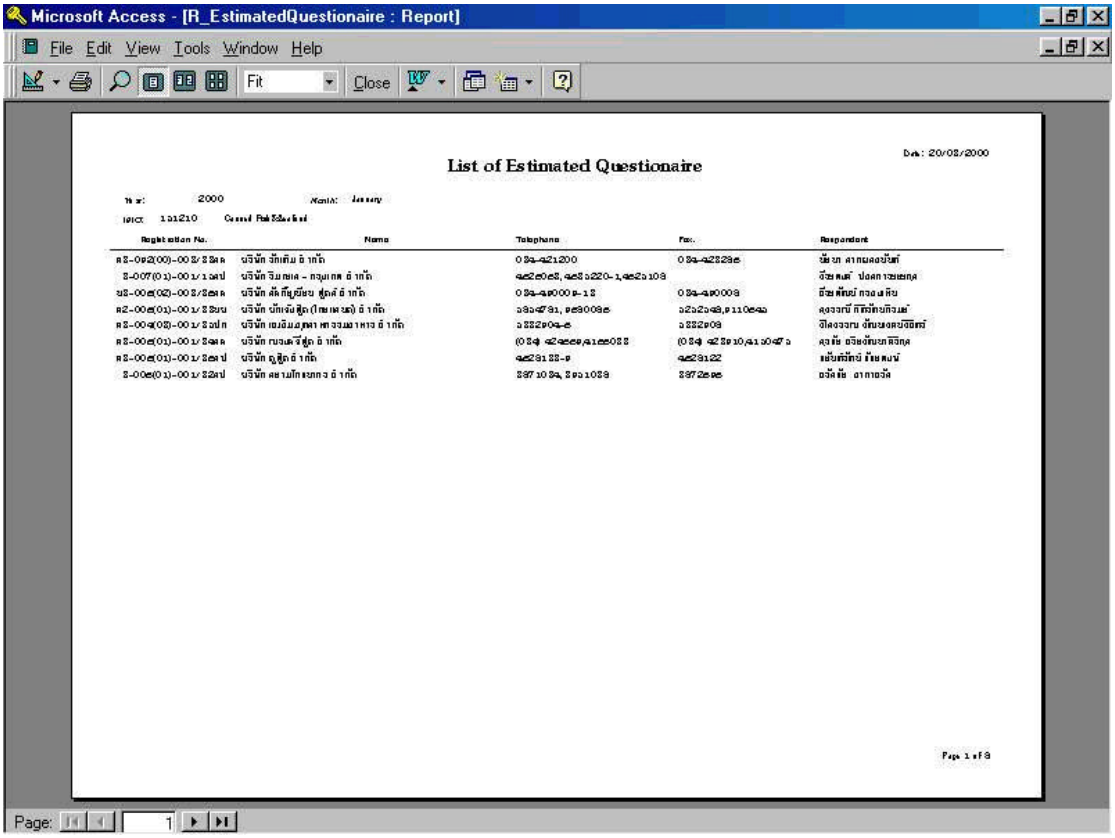
Error Log Report

YEAR: 2000 MONTH: 1

ISIC	Registration No.	Item Type	Commodity Code	Commodity Name	Message Code	Message Name
181010	u3-028(01)-003/34สป	บริษัท บอดี้ แฟชั่น (ประเทศไทย)	Tel: 3153283-98		Respondent	เดวิด เฟลมิ่ง
		1	060	Woven Other (Lady)	L17	Estimated ME_Inventory < 0
232010	u3-049(00)-001/36รย	บริษัท โรงกลั่นน้ำมันระยอง จำกั	Tel: (038) 684290		Respondent	สิน ไทวรรธนะ
		1	030	Gas (unlead) Oct 91	L17	Estimated ME_Inventory < 0
		1	040	Gas(unlead)Oct95up	L17	Estimated ME_Inventory < 0
		1	070	Jet fuel	L17	Estimated ME_Inventory < 0
		1	090	Fuel oil 1	L17	Estimated ME_Inventory < 0
		1	140	Liq petroleum gas	L17	Estimated ME_Inventory < 0
		1	160	Naphtha	L17	Estimated ME_Inventory < 0
321020	u2-072(00)-003/32สป	บริษัท ไทยอาซาฮี เคนกิ จำกัด	Tel: 3240380-2		Respondent	ตำรงพล เพ็ญประพัฒน์
		1	020	Fixed resistors	L17	Estimated ME_Inventory < 0
341010	3-077(01)-001/18สป	บริษัท โตโยต้า มอเตอร์ ประเทศไ	Tel: 3861089		Respondent	สุรวินย์ แสวงดี
		1	140	T 1 ton space (2w)	L17	Estimated ME_Inventory < 0
341010	3-077(01)-001/19สป	บริษัท ไทย-สวีดิช แอสเซมบลีย์	Tel: 3381931-4,707172		Respondent	ณัฏชลี ยุทธาศนี
		1	080	OPV	L17	Estimated ME_Inventory < 0

29-3. Warning List for the Batch Process (3) – List of Estimated Questionnaire -

The Screen showing below is a sample of " **List of Estimated Questionnaire** ". It shows automatically calculated by the system case the data are not input, or data are not input even after recipient of the questionnaire from business establishments or respondents.



List of Estimated Questionaire

Date: 17/03/2000

Year: 2000 ***Month:*** January

ISIC: 171110 Cotton and Silk yarn

Registration No.	Name	Telephone	Fax.	Respondent
3-024(00)-001/18นฐ	บริษัท เจริญสวัสดิ์ไยเทียมยีด จำกัด	034-321452-4,287674-7	3211451	พิทักษ์ เจริญสวัสดิ์ศิริ
3-022(02)-001/13ปท	บริษัท ไทยคูราโบ จำกัด	5168421-4	5168073	อนุรักษ์ บราวงศ์
3-022(01)-002/35สป	บริษัท โรงงานผ้าไทย จำกัด (มหาชน)	7038484	3871983	บุญชัย ศิริธีราเจษฎ์
3-022(01)-003/38นฐ	บริษัท สยามโมเดอร์นเท็กซ์ จำกัด	034-200033	034-255052	ประสิทธิ์ จงศิริ

List of Estimated Questionaire

Date: 17/03/2000

Year: 2000 *Month:* January

ISIC: 173010 Knitted Fabrics

Registration No.	Name	Telephone	Fax.	Respondent
3-024(00)-003/14กท	บริษัท โรงงานไทยแลนด์นิตติ้ง จำกัด	3811955	3913976	ปรีชา ธนสารสมบัติ
3-028(01)-001/37ปจ	บริษัท ไทยการ์เมนต์เอ็กซปอร์ต จำกัด (ปราจีนบุรี)	(037) 208091-8	(037) 208089	พัฒนะ ฉันทชาติ
จ3-028(01)-004/36นฐ	บริษัท สามพรานแฟชั่นเฮ้าส์ จำกัด	(034) 322562	(034) 322563	จุฑามาศ ทับทิม
จ3-028(01)-003/37สป	บริษัท สแตนดาร์ดการ์เมนท์ จำกัด	7034810-6, 7035892-3	7034817-8	ชวลิต จันทรทิม
3-028(01)-016/34กท	บริษัท ชัยบูรพา จำกัด	4158797,8940090-7	4150603	นวลอนงค์ ฉายาทัพ
3-028(01)-188/26กท	บริษัท โรจน์ธนสาร จำกัด	7429408, 7429227, 3312792, 33	3316138	เพชรสุดา บัวแก้ว
3-028(01)-105/29กท	บริษัท เอช แอนด์ บี อินเตอร์เท็กซ์ จำกัด	2940091-4 ต่อ 238	2942443,6837475	สมจิตต์ เอี่ยมกิจสัมฤทธิ์
3-028(01)-009/40กท	บริษัท อินทิเมทแฟชั่น จำกัด	8134041-5	8134046	มานพ มานะสกุลกิจ
3-028(01)-014/16กท	บริษัท เครื่องนุ่งห่มสำเร็จรูป จำกัด	3793230-40	3794455	วรวิทย์ สุวรรณฉัตรชัย

List of Estimated Questionaire

Date: 17/03/2000

Year: 2000 *Month:* January

ISIC: 181010 Wearing apparel

Registration No.	Name	Telephone	Fax.	Respondent
3-028(01)-056/34กท	ห้างหุ้นส่วนจำกัด โรงน่อะแพเร็ล	6750932-4	2129717	ชวัญจิต ปลื้มจิตต์
3-028(01)-001/25ปท	ห้างหุ้นส่วนจำกัด ชินวัตร แฟชั่นเฮ้าส์	5291227-8, 2583529	2584274, 5291500	วิวัฒน์ หิรัญฤทธิ์
3-028(01)-001/27นบ	บริษัท วาไทย อุตสาหกรรม จำกัด (มหาชน)	5730788,9844130 ต่อ 142	5734283,5744427	เบ็ญจวรรณ ลาภประเสริฐ
3-028(01)-001/41พช	บริษัท วรพรการ์เมนท์ จำกัด	4370884,01-8376884	4390239	สมภาค วิชัยศรี
3-028(01)-003/21สป	บริษัท ยูเนี่ยนการ์เม้นท์ จำกัด	3239285-6	3239181	มาลุริชญ์ นุณยสมิต
3-028(01)-057/31กท	บริษัท เอลต้า จำกัด	3291018-9, 3290099	3291247	กานตา วีระพิชญ์เกษม
จ3-028(01)-021/35สป	บริษัท ราชาอูชิโน จำกัด	4639566, 4630109	8175065	ทัศนี เจริญกิจสกุลชัย
น3-028(01)-003/34สป	บริษัท บอดี้ แฟชั่น (ประเทศไทย) จำกัด	3153283-98	3153311	เดวิด เฟลมิ่ง
3-028(01)-029/27กท	บริษัท ประชาอาภรณ์ จำกัด (มหาชน)	6821900-7	2945159	สุวัฒน์ พานิชเลิศ
น3-028(01)-001/29กท	บริษัท เยนเนอรัล โค้ตติ้งกรุ๊ป จำกัด	3260377-8	3260207	สิงห์โต อิศรางกูร ณ อยุธยา
จ3-028(01)-004/36ปจ	บริษัท วาโก้กบินทร์บุรี จำกัด	(037) 281945, 205140-2	(037) 205140-2 ต่อ 101	ปรียากรณ์ ฉัตราลิปลักษณ์
3-028(01)-167/26กท	บริษัท เยอร์บีร่า จำกัด	6740533-6	2125251	วิวัฒน์ ฉัตรนันทเวช
3-024(00)-022/29กท	บริษัท เพรสซิเดนท์ นิตติ้ง แอนด์ การ์เม้นท์ จำกัด	2124671	2123938	อุไรรัตน์ แสงวัฒนโรจน์
3-028(01)-194/34กท	บริษัท นวอากรณ์ จำกัด	8076715-26	4441345	เพลินพิศ ฉัตรวัฒนาสกุล
3-028(01)-169/25กท	บริษัท เวิลด์แวร์อินดัสตรี จำกัด	4270245	4277333	เกศรา กาญจนชำรงค์กุล
3-028(01)-156/31กท	บริษัท คงคาอุตสาหกรรมการทอ จำกัด	8090001-10	8090823	อุษณีย์ ลิ
3-028(01)-154/35กท	บริษัท การ์เม้นท์ เทค อินเตอร์เนชั่นแนล จำกัด	9191396	5179539	ชมงาม กระพามงคล
3-028(01)-113/30กท	บริษัท อาเซี่ยนการ์เม้นท์ จำกัด	4518579	4518586	สุปรียา หลิมสุนทร
3-028(01)-100/27กท	บริษัท ปิ๊ปปิน อินเตอร์เนชั่นแนล อี.แอนด์.ไอ. จำกัด	3215059, 3215076-7	3213741	ศิริศิลป์ วณาศรีวิสัย
3-028(01)-096/35กท	ห้างหุ้นส่วนจำกัด เอเชียไทยโปรดิ๊ก	376-0405	3760363-4	สุรีย์พร ริ้วประเสริฐ
3-028(01)-095/29กท	บริษัท วรพรการ์เม้นท์ จำกัด	4370884, 4391119, 4383355, 01	4390239	สมภาค วิชัยศรี
3-028(01)-182/32กท	บริษัท เวชวิวัฒน์ จำกัด (โรงงาน 1)	5175890-3	9147522	สุวิทย์ พลเดช
น3-028(01)-002/33สป	บริษัท ซันเท็กซ์ อินดัสเตรียล คอโพเรชั่น จำกัด	3231906-9	3232596	กิตติชัย จันทโรทัย

Date: 17/03/2000

List of Estimated Questionaire

Year: 2000 ***Month:*** January

ISIC: 232010 Gasoline,Deisel,etc

Registration No.	Name	Telephone	Fax.	Respondent
u3-049(00)-001/365ย	บริษัท โรงกลั่นน้ำมันระยอง จำกัด	(038) 684290	(038) 683264	สิน ไทวรรธนะ

Date: 17/03/2000

List of Estimated Questionaire

Year: 2000 ***Month:*** January

ISIC: 321010 IC

Registration No.	Name	Telephone	Fax.	Respondent
ส3-072(00)-005/32ปท	บริษัท พีซีทีที จำกัด	5291803, 5291666, 5292020, 90	5291812	สมิทร ตันติวนิจกิจ
ส3-072(00)-001/34นบ	บริษัท เซมิคอน ดัคเตอร์ เวนเจอร์ อินเตอร์เนชั่นแนล จำกัด	5745671, 5746021-3, 5741861	5745672-3	วีระ จิระชัยอารีย์

List of Estimated Questionaire

Date: 17/03/2000

Year: 2000 ***Month:*** January

ISIC: 321020 Electric Switches

Registration No.	Name	Telephone	Fax.	Respondent
ส3-074(03)-001/32ปท	บริษัท โคชิน (ประเทศไทย) จำกัด	5291712-4	5291715-6	สุมาลี สีละ
ส3-072(00)-003/40อย	บริษัท นิชิยามะ อินดัสตรีส์ (ไทยแลนด์) จำกัด	035-221584	035-221589	สุวิชัย พัฒนวิฑูรย์
ส3-072(00)-001/31สป	บริษัท ซัมมี ซาวด์ เท็ค (ประเทศไทย) จำกัด	3840613,7582333-4	3840760	พรเพ็ญ จิตรพูลผล
น3-072(00)-006/37สป	บริษัท เดลต้า อิเล็กทรอนิกส์ (ประเทศไทย) จำกัด (มหาชน)	7093800 ต่อ 876,7093810	7093815	บุญเพ็ง ไชยเดช
3-072(00)-006/33ปท	บริษัท อัลฟาซอร์ส แมนูแฟคเจอริ่ง โซลูชั่น จำกัด (มหาชน)	5011020	5011441-2	จักรกฤษณ์ ศรลัมพ์
น2-072(00)-003/32สป	บริษัท ไทยอาซาฮี เดนกิ จำกัด	3240380-2	3240383	ดำรงพล เพ็ญประพัฒน์

Date: 17/03/2000

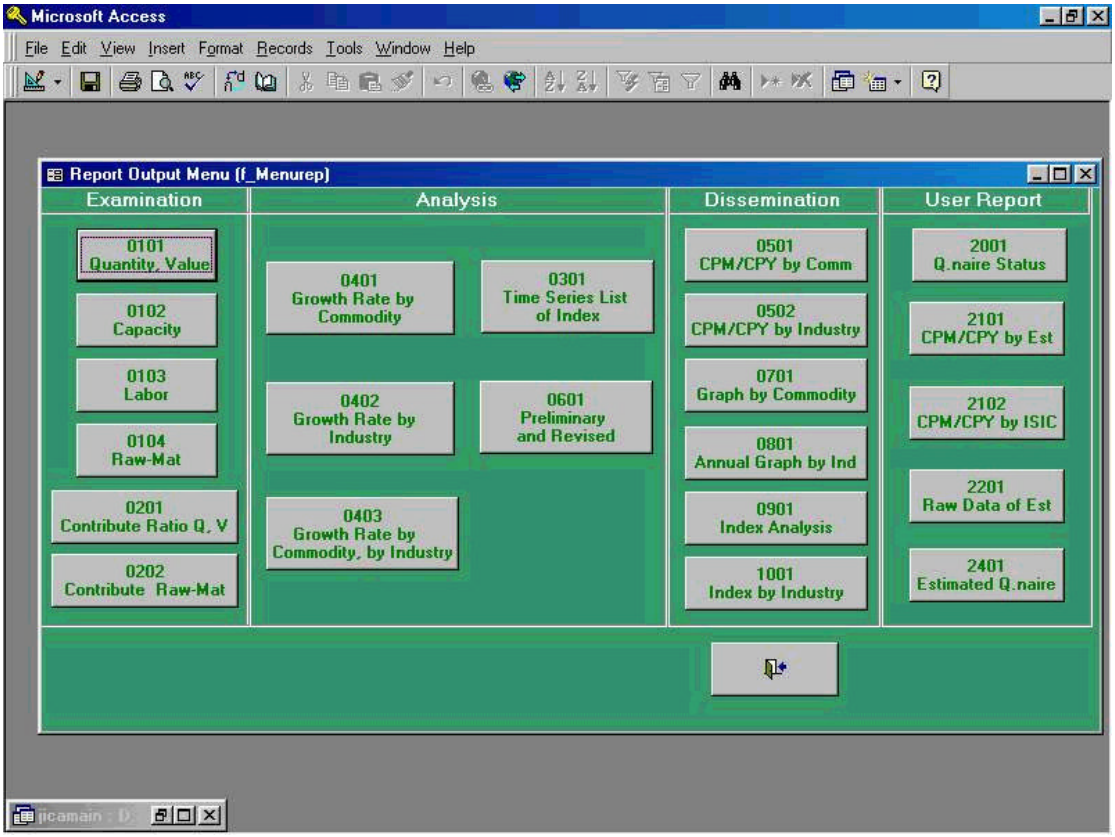
List of Estimated Questionaire

Year: 2000 ***Month:*** January

ISIC: 341010 Car

Registration No.	Name	Telephone	Fax.	Respondent
3-077(01)-001/38สป	บริษัท ธนบุรีประกอบรถยนต์ จำกัด	3842889, 7579544-51	3846253	วันชัย อ่องเอี่ยม
3-077(01)-001/18สป	บริษัท โตโยต้า มอเตอร์ ประเทศไทย จำกัด	3861089	3861717	สุรวินย์ แสวงดี

30. Report Output Menu



Screen shown above is main table of menu which extracts all kinds of report output. Note that both side, left and right, showing **" Examination "** and **" User Report "** tables are for data input and for making various reports (For IDSS Team in OIE). Both **" Analysis "** and **" Dissemination "** portion in the table are for Analysis Team in OIE. All reports being created by function of the table are to be extracted by Excel file using **" File export "** function of Access RDB software.