Chapter 5. Booting and Shut-down of the Systems

5. Booting and Shut-down of the Systems

5.1 Booting and Shut-down of Hardware

(1) Booting of Hardware

The hardware system used to configure the energy database consists of general-purpose personal computers, and the type of connection used is not particularly complicated. Therefore the system should be started following the standard booting procedures for personal computer systems. The most important thing when starting a computer system is to begin turning on components beginning with the peripheral furthest from the computer's central processing unit (CPU), successively turning on peripherals closer to the CPU. It is therefore recommended that this practice be followed in starting up this system as well.

In the case of this system, turn on the power in the order of the following peripherals: 1) the un-hazardous power supplies (UPS), 2) the printers, and 3) the CPUs.

(2) Shut-down of Hardware

The hardware should be turned off (system shutdown) in reverse order of that given for turning it on: 1) the CPUs, 2) the printers, and 3) the UPS units. Although this is also standard practice, be sure that all jobs pending for peripherals have been completed before shutting down the system. For example, if the printer is in the middle of printing a job, wait for the printer to finish before beginning system shutdown.

Furthermore, be sure to exit all software being run on the PCs and exit Windows-95, being sure to wait for the shutdown message, before turning off power to the CPU. This is critically important in terms of protecting any jobs that may be currently executing.

5.2 Starting-up and Close-down of Software

(1) Starting-up software

After booting the hardware system in the order given in Item (1), "Starting up hardware", of Section 5.1 above, **Screen 104** will be the first screen to appear.

From this screen the computer operator is able to access Windows-95, the energy database, and application software stored on the system. Since the main purpose of this manual is describing how to access the energy database, the procedures for starting other application software will be omitted.

(Refer to Screen 104)

Although all files of the energy database are represented, included among the icons displayed on **Screen 104** is an icon for the **Energy_Data_Base** folder. Double clicking with the left mouse button on this icon will cause **Screen 105** to be displayed, thus allowing access to the energy database.
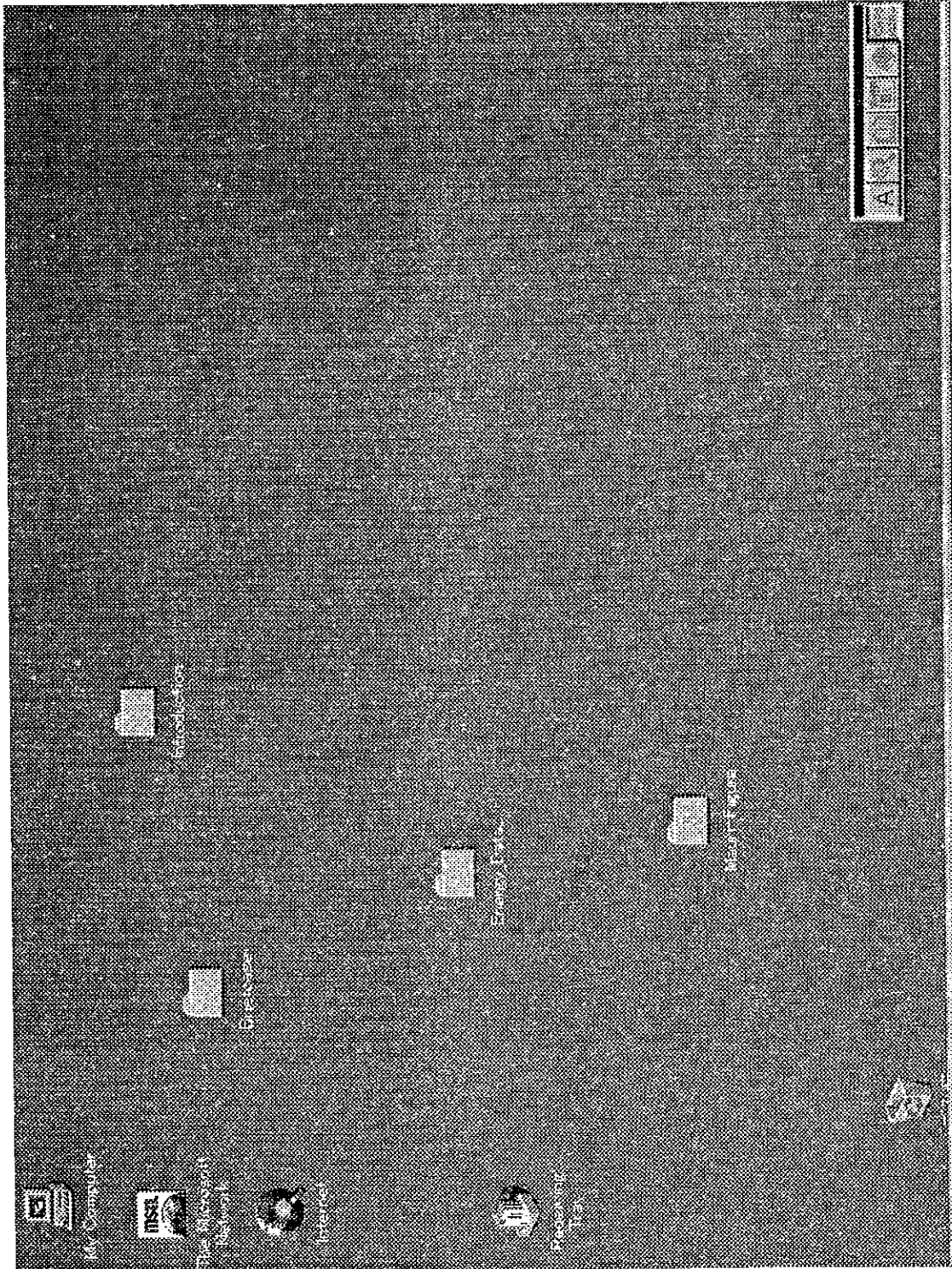
(Refer to Screen 105)

A total of 19 files are contained within the **Energy_Data_Base** folder. These files configure the entire energy database, and all of them can be run within Excel. It is therefore possible to open any of these individual files by using "**Open**"on Excel's "**File**" menu. However, since nearly all of these 19 files are linked and since a program for linking them is written into these files, they should be opened all at once rather than individually. Follow the procedure given below to open all files at once.

First, single click the left mouse button on the "**Edit**" option in the upper left of **Screen 105**. Once the Edit menu appears, click on the "**All**" option. This will result in all files on the display being highlighted for selection as shown in **Screen 106**.
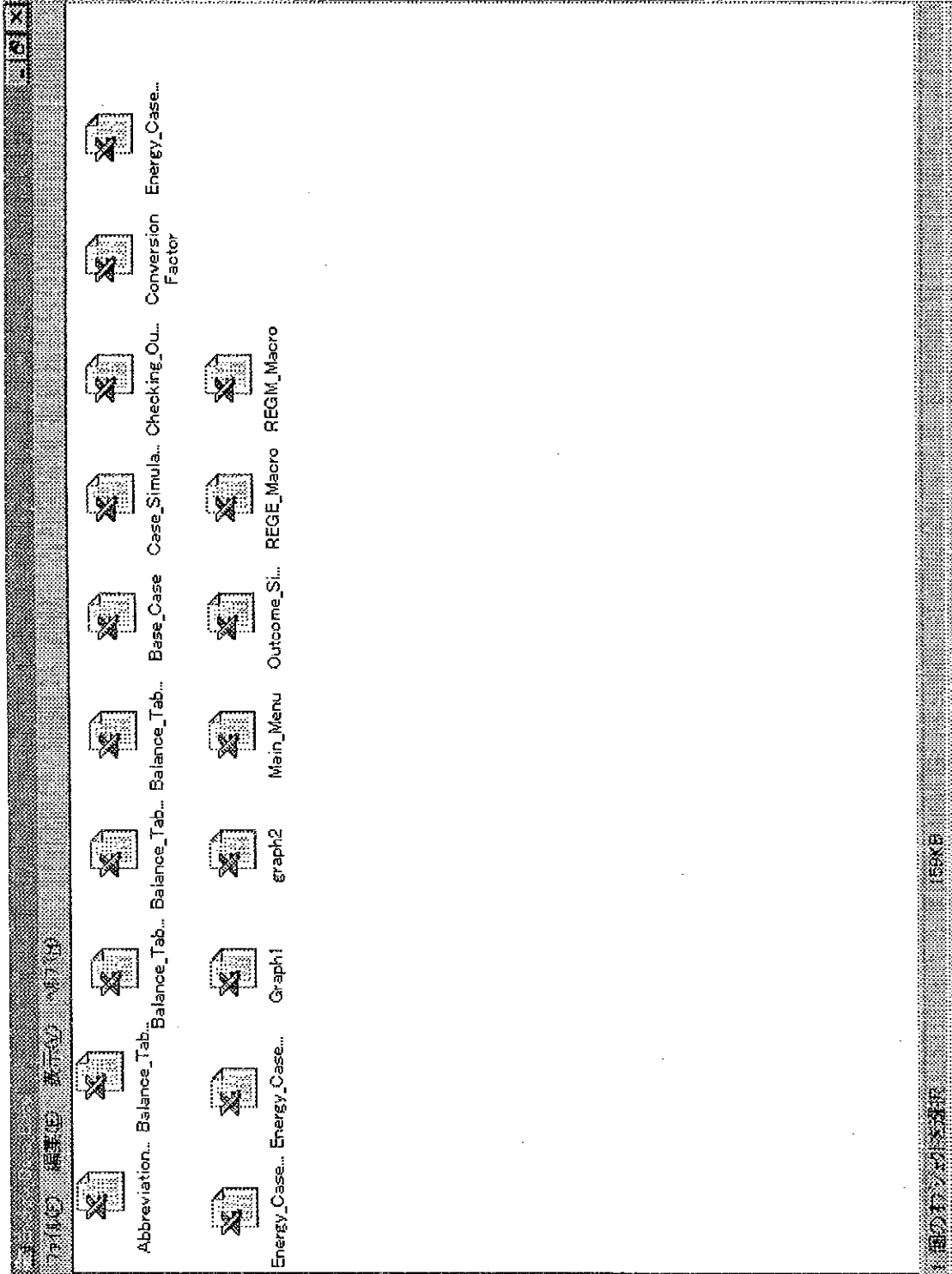
(Refer to Screen 106)

Screen 104

Energy_Data_Base(1)

Screen 105

Abbreviation... Balance_Tab...

Balance_Tab... Balance_Tab...

Energy_Case... Energy_Case...

Graph1

graph2

Base_Case

Case_Simula...

Checking_Ou...

Conversion
Factor

Energy_Case...

Main_Menu

Outcome_Si...

REGE_Macro

REGM_Macro

Energy_Data_Base(2)

5 - 4

ファイル(F) 編集(E) 表示(V) ...

Abbreviation... Balance_Tab.. Balance_Tab.. Balance_Tab.. Balance_Tab.. Base_Case Case_Simula.. Checking_Ou.. Conversion Factor Energy_Case...

Energy_Case... Energy_Case... Graph1 graph2 Main_Menu Outcome_Si.. REGE_Macro REGM_Macro

Energy_Data_Base(3)

After making sure that all files are highlighted, click with the mouse on "**File**" and then click on "**Open**". All files will be opened automatically after completing this procedure.

At the point that files are about to be opened, a message from the PC will appear on the monitor. The message will indicate that all files in the energy database system are linked, and will ask you if they should be linked. Since it is presumed that the system will be run with nearly all files of the energy database linked, the user should instruct the computer to link them.

For example, when the query message "**This document contains link. Re-establish?**" shown in **Screen 107** appears, the operator should select "**Yes**".

(Refer to Screen 107)

Energy_Case_01.XLS is the master file of this database, while the two files **Energy_Case_02.XLS** and **Energy_Case_03.XLS** are so-called "sub-master files". The other 16 files are all dependent on, and run in conjunction with, these three. Messages asking whether these files really should be run in conjunction with the master file will therefore appear on the monitor. **Screen 108** and **Screen 109** show these messages. When these messages appear, click on "**Energy_Case_01.XLS**" in the center of the screen, and then click on the "**OK**" button at the middle right to perform the processing being queried by the message. Link command processing for the files "**Energy_Case_02.XLS**" and "**Energy_Case_03.XLS**" will be performed. As a result of this processing, the 18 files will be linked and run in conjunction with each other.

(Refer to Screen 108)

(Refer to Screen 109)

The opening of energy database files is now complete. Although having 18 files in the same folder is a lot and although it takes longer to open all files than it does to open them individually due to all the links involved, this is the surest and safest method for opening the energy database files.

=C:¥WINDOWS¥データストシ¥ン¥グ¥Energy_Data_Base¥[Energy_Case_01.xls]EnergyModel'!S34 8

Energy Balance Table in TOE (Case01)

1995	Coal	Gasoline	Diesel	Jet Fuel	Kerosene	Fuel Oil	LPG	Fuel Woo
Indigenous Production								4,9
Import	39,113	90,675	121,510	125,041	44,639	175,436	36,396	
Export				-125,041				
TPES	39,113	90,675	121,510	0	44,639	175,436	36,396	4,9
Electricity Generation	-18,779		-2,625		-33,625	-137,171		
TFC	20,334	90,675	118,885	0	11,014	38,266	36,396	4,9
Industry Sector	20,334		17,428			38,266	2,754	1,46
Transport Sector		90,675	101,458					
Commercial Sector							3,402	
Domestic Sector							30,240	3,4
Statistical error							0	

Notes:
TPES: Total Primary Energy Supply
TFC: Total Final Consumption
The jet fuel is considered as re-export.

[Dialog box: This document contains links. Re-establish — Yes No Help]

Balance95 / Case01 / MacRecor

Energy_Data_Base (4)

Screen 108

=0.64477*((AO109)^0.3*(AN279)^0.8*(1-AO287/100))

		AN	AO	AP
		2010	2011	2012
275	Kerosene	671	537	430
276	Fuel Wood	506	405	324
277	LPG	57,464	64,368	69,539
278	Charcoal	18	14	11
279	Electricity	1,548,294	1,738,752	1,922,560
280				
281	Consumpt			
282	Kerosi			447
283	Fuel V			123
284	LPG			5,103
285	Charc			8
286	Total			5,681
287	Energ			0
288				
289	Electricity			
290	Electri			0,091
291	Electri			6,401
292	Total E			6,493
293	Electri			461.3
				62.0

File Not Found

Look in: Energy_Data_Base

Energy_Case_01

Find files that match these criteria:
File name: Energy_Case_01
Files of type: Worksheets

Text or property:
Last modified: any time

OK
Cancel
Advanced
Find Now
New Search

For Help on dialog settings, press F1

Energy_Data_Base (5)

Screen 109

```
' GoToMenu Macro
' Macro recorded 14/11/95 by CUSTOMER

Sub GoToMenu()
    Application.Run Macro
    Windows("Main_Menu.xls").Activate
End Sub
```

Energy_Data_Base (6)

There are other methods of opening these files. Although you can use the "Open" option on Excel's "File" menu, it is not really recommended as this will then involve manual linking between the files and is inconvenient. Note, however, that cases do arise where it is acceptable to use Excel's "Open" option to open and use individual files such as when using tools other than the energy demand forecasting and analysis tools on just part of the database.

Once all the database files have been opened, **Screen 110** will be displayed so that they may be used and operated on. Note, however, that the same screen does not necessarily appear every time after all files have been opened. This will depend on which file was closed last by the last user to use the database. Whichever screen was being displayed when the database was last closed will appear on the monitor at this point. Cases therefore arise where the main menu screen shown in **Screen 111** does not appear on the screen as the initial screen after all files have been opened. If this occurs, you can bring up the main menu by clicking on the **GoToMenu** command button displayed on the left of the first Sheet of any of the files.

(Refer to Screen 110)

(Refer to Screen 111)

This energy database system utilizes a menu-driven access system to make the access of all files easier for the user. **Screen 111** is the main menu screen used for accessing all files in the database. The user can quickly access any file from this screen.

For example, if you would like to know the meaning of any of the 370 abbreviations used in the master file or one of the sub-master files, all you need to do is click on the "**Abbrev**" command button and the file listing these abbreviations and their meanings will instantaneously appear. The user can then search for the item he or she wishes to check. **Screen 112** is an example of an abbreviation list file screen called up by this process. After accessing any of the files from the main menu in this manner, the main menu screen will appear, allowing you to easily access any of the other files next.

Screen 110

		Unit	Code	1985	1986	1987	1988	1989	199
Social statistics									
E	Population	000 Perso	POP	990	990	1,000	1,020	1,030	1,07
I	Independen	1000 familie	HOH	165	165	167	170	172	17
Labor Forces									
E	Agriculture,	Person	LABPRI	93,200	90,600	89,500	86,900	86,700	72,90
E	Manufactur	Person	LABMAN	66,200	90,300	110,200	124,900	126,200	139,00
	Sugar	Person	LABSUG						7,50
E	EPZ	Person	LABEPZ						88,90
	Domes	Person	LABDOM						42,60
E	Electricity,	Person	LABELE	3,900	3,600	3,700	3,600	3,500	3,40
E	Constructio	Person	LABCON	12,800	13,400	19,300	25,100	26,800	31,00
E	Wholesale,	Person	LABCOM	28,400	29,400	32,500	39,300	43,200	52,20
E	Transportat	Person	LABTRA	18,900	19,400	21,900	23,200	26,600	28,70
E	Banking, In	Person	LABBAN	6,200	6,500	7,000	7,700	9,600	11,50
E	Other servic	Person	LABSER	96,900	96,600	97,700	101,200	99,200	102,10
I	Total Labor	Person	LABTOT	326,500	349,800	381,800	411,900	421,800	440,80
I	Labor Force	%	LABSHA	33	35	38	40	41	
GDP at Current Price									

ENG

Energy_Data_Base (7)

Screen 111

Long Term National Energy Plan
in
the Republic of Mauritius

— Energy Database Systems —

Ministry of Local government and Public Utilities
Japan International Cooperation Agency

REGM

REGE

Case_01

Cont_Fcast

Check_Outcome

Case_02

Case_02

Abbrev

Base_Case

Case_Simulation

Outcome_Simulation

BalanceTable1995 | BalanceTable2000 | BalanceTable2010 | BalanceTable2025

Energy_Demand_Forecast

Operation Manual:Please open Operation Manual in the Word File

MainMenu / MacRecord /

MainMenu

5 - 12

Note that the associated Operation Manual file cannot be opened by clicking on the "Operation Manual" command button on this **Main_Menu.XLS** screen. This is due to the fact that the Operation Manual was created using the MS-Word application package, but contains approximately 150 screen images created using Excel, and that many user operations become difficult when attempting to utilize combined features of these two applications from within Excel. The Operation Manual (**Operation_Manual.Doc**) file must therefore be accessed manually using MS-Word. Note that the reason this file appears in this folder is due to the fact that approximately 150 screen included in the Operation Manual were created using Excel.

(**Refer to Screen 112**)

(**Refer to Screen 113**)

(2) Shut-down of Software

It is recommended that you exit the energy database system by exiting the Excel application itself. This will close all 18 files in the folder thus exiting the entire system. A menu indicating the status of files will appear when you click with the mouse on the Excel emblem in the upper left corner of the main menu as shown in **Screen 113**. When this menu appears, click on the "Close" option at the very bottom of the menu to close all files.

Once the processing on the previous page is complete, a message as shown in **Screen 114** will appear asking whether to save changes to the files. If you have made any revisions or additions to data in the energy database system you should enter "Yes". Enter "No" if you did nothing more than look at the data. Which one you choose depends entirely on the work done by the user and the result of that work. The user must use his or her best judgment to make this decision.

(**Refer to Screen 114**)

Abbreviations in the DataBase (1)

Abbreviation	Description
ARSEL	Electrical Home Appliances: Electricity Consumption (PHY)
ARCOK	Electrical Home Appliances: Rice cooker(1set/family, 1000w, 0.5h)
ARDREF	Electrical Home Appliances: Prevailing Rate of Refrigerators (%)
ARDTV	Electrical Home Appliances: Prevailing Rate of TV (%)
ARHEA	Electrical Home Appliances: Water heaters(1set/family, 4000w, 1h)
ARIRN	Electrical Home Appliances: Iron(1set/family, 2000w, 0.5h)
ARKTL	Electrical Home Appliances: Kettle(1set/family, 2000w, 0.5h)
ARLIT	Electrical Home Appliances: Light (8set/family, 40w, 3.5h)
ARREF	Electrical Home Appliances: Refrigerators & Freezers (120w, 8h)
ARTV	Electrical Home Appliances: TV Licensed (140w, 6h)
ARWAS	Electrical Home Appliances: Washing Machines (1set/family,150w, 0.5h)
ATBUS	Transportation Equipment: Bus (Registered)
ATCAR	Transportation Equipment: Car and Dual Purpose Car (Registered)
ATCYC	Transportation Equipment: Motor cycle and Auto Cycle (Registered)
ATHVY	Transportation Equipment: Tractor, Dumper and Heavy motor car (Registered)
ATOTH	Transportation Equipment: Others (Registered)
ATTRU	Transportation Equipment: Lorry, Truck, and Van (Registered)
CPIMRT	Price Index and Exchange Rate: Consumer Price Index

Abbreviations

Long Term National Energy Plan
in
the Republic of Mauritius

— Energy Database Systems —

Ministry of Local government and Public Utilities
Japan International Cooperation Agency

REGE

REGM

Conv_Fact

Base_Case

Case_01

Case_02

Case_03

Check_Outcome

Abbrev

Case_Simulation

Outcome_Simulation

Energy_Demand_Forecast

BalanceTable1995

BalanceTable2000

BalanceTable2010

BalanceTable2015

Operation Manual:Please open Operation Manual in the Word File

MainMenu MacRetro

MainMenu

Screen 114

File Edit View Insert Format Tools Data Window Help

Text 12

75%

Long Term National Energy Plan
in
the Republic of Mauritius
—Energy Database System—

Ministry of Local government and Public Utilities
Japan International Cooperation Agency
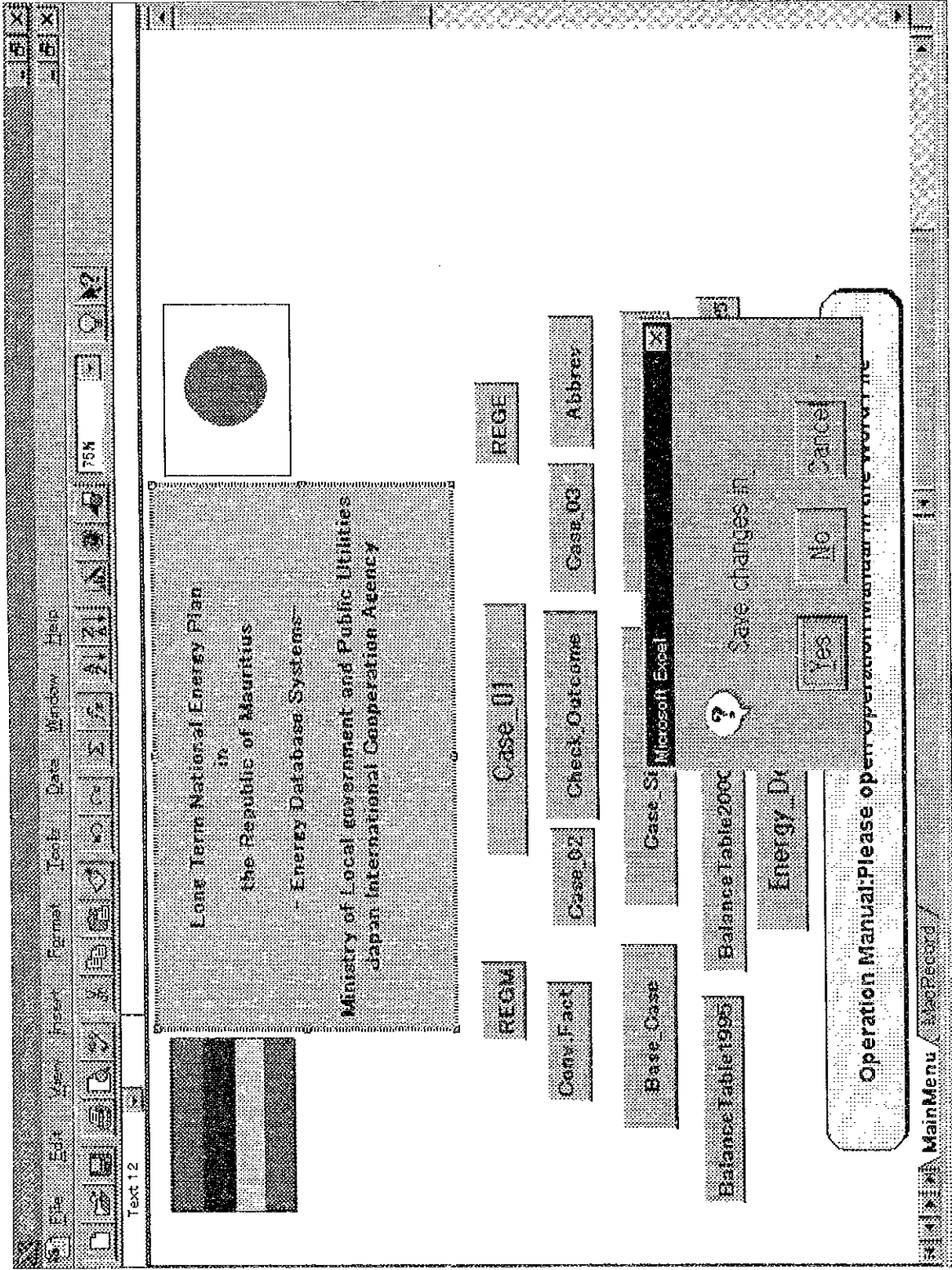
REGE

Case_01   Check Outcome   Case_03   Abbrev

REGM

Conv Fact   Case_02   Case_Si   Microsoft Excel

Base_Case   Energy_D   Save changes in

BalanceTable1995   BalanceTable200C

Yes   No   Cancel

Operation Manual:Please open operation manual in the word file

MainMenu   UserRecord
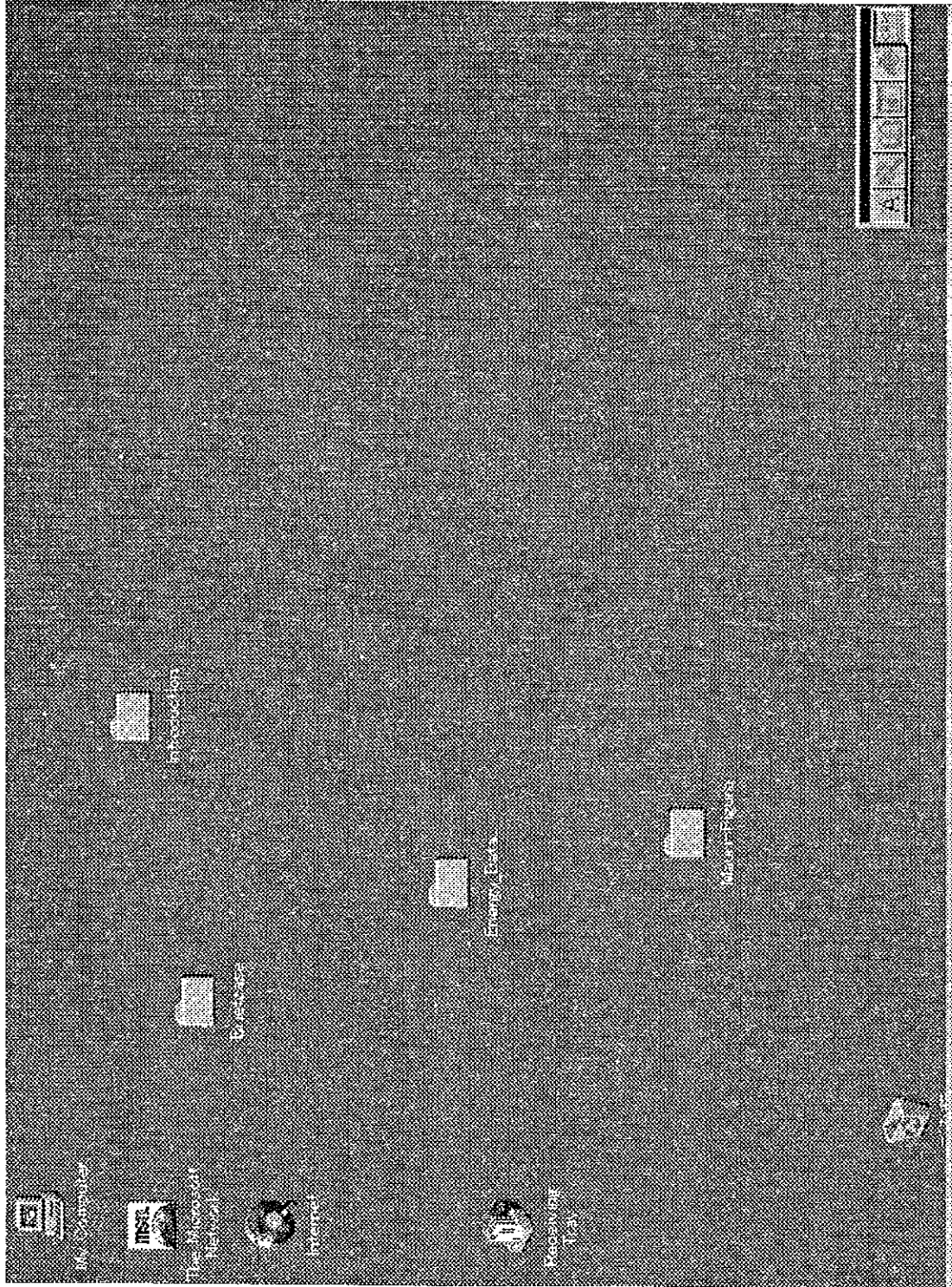
MainMenu

5 - 16

Screen 115, the exit screen (also the initial screen), displays the results of work done upon exiting software. The user decides what to do next at this screen: whether to quit working and quit the system or whether to select another application. This is done by issuing the corresponding command. Whatever it is, it can be selected from this screen.

(Refer to Screen 115)

Initial Screen