4.19 Graph1. XLS File

This file is included as an original file in the energy data base, however, it is also left as a user creation file. Graph1.XLS file is installed as a file which has direct linkage function with Energy_Case_01.XLS, Energy_Case_02.XLS, Energy_Case_03.XLS and Case_Simulation.XLS. Therefore, by accessing all these three files and Graph1.XLS file, operators of this system are able to access and create graphics whatever the operators wish to identify the trends and movements of macro economic data and energy data. Since this file is directly linked with above mentioned three files, it will be changed automatically when any changed being made in the three files.

(Refer to Screen 091)

All sheets included in Graph1.XLS file are Sec.Con1, Sec.Con2, Sec.Con3, TTLCase1, TTLCase2, TTLCase3, Inl.Enrgy, Inl.Enrgy,bunkers, TTL.Ele, linegraph1, linegraph2, and fuelinp.ele.gene. Descriptions of each sheet are follwings:

(1) Sec.Con1

(Refer to Screen 092)

This sheet is linked with Energy_Case_01.XLS file and refers to TOE based energy consumption by each industry sector in base case.

(2) Sec.Con2

(Refer to Screen 093)

This sheet is linked with Energy_Case_02.XLS file and refers to TOE based energy consumption by each industry sector in the high case.

(3) Sec.Con3

(Refer to Screen 094)

This sheet is linked with Energy_Case_03.XLS file and refers to TOE based energy consumption by each industry sector in low case.

(4) TTLCase1

(Refer to Screen 095)

This sheet is linked with Energy_Case_01.XLS file and refers to MWh based electricity consumption by each industry sector in base case.

(5) TTLCase2

(Refer to Screen 096)

This sheet is linked with Energy_Case_02.XLS file and refers to MWh based energy consumption by each industry sector in high case.

(6) TTLCase3

(Refer to Screen 097)

This sheet is linked with Energy_Case_03.XLS file and refers to MWh based energy consumption by each industry sector in low case.

(7) Inl.Enrgy

(Refer to Screen 098)

This sheet is linked with Energy_Case_01.XLS, Energy_Case_02.XLS, and Energy_Case_03.XLS file and refers to TOE based inland energy consumption by each sector in base, high, and low cases.

(8) Inl.Enrgy,bunkers

(Refer to Screen 099)

This sheet is linked with Energy_Case_01.XLS, Energy_Case_02.XLS, and Energy_Case_03.XLS file and refers to TOE based inland energy consumption included bunkers by each sector in base, high, and low cases.

(9) TTL.Ele

(Refer to Screen 100)

This sheet is linked with Energy_Case_01.XLS, Energy_Case_02.XLS, and Energy_Case_03.XLS file and refers to MWh based total electricity consumption by sector in base, high, and low cases.

(10) linegraph1

(Refer to Screen 101)

This sheet is linked with Base_Case.XLS, and Case_Simulation.XLS and refers to comparative graph of total electricity consumption.

(11) linegraph2

(Refer to Screen 102)

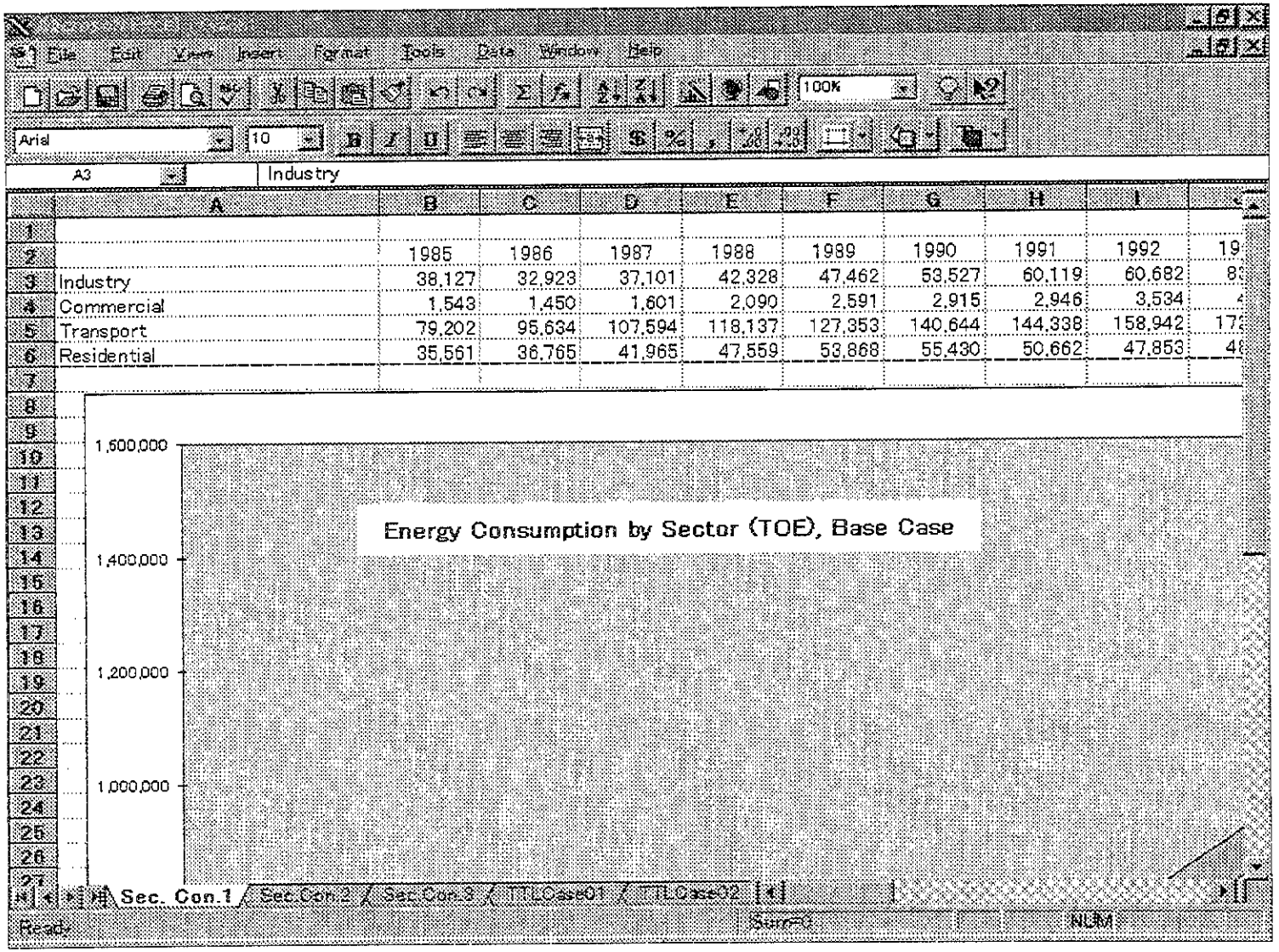
This sheet is linked with Base_Case.XLS, and Case_Simulation.XLS and refers to TOE based comparative graph of energy consumption including electricity and non-electricity.

(12) fuelinp.ele.gene

(Refer to Screen 103)

This sheet refers to fuel input for electricity generation.

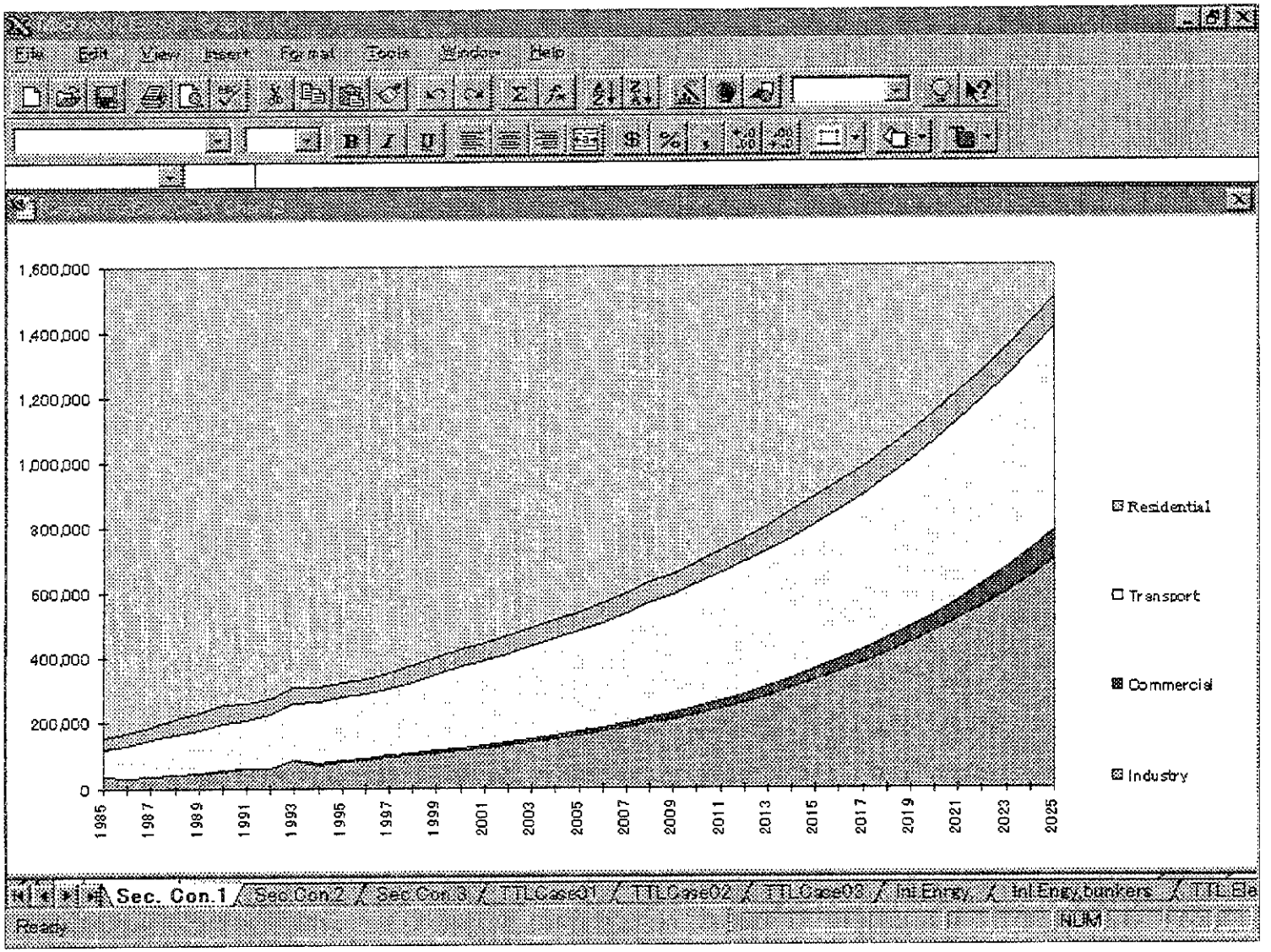
Screen 091



	A	B	C	D	E	F	G	H	I
2		1985	1986	1987	1988	1989	1990	1991	1992
3	Industry	38,127	32,923	37,101	42,328	47,462	53,527	60,119	60,682
4	Commercial	1,543	1,450	1,601	2,090	2,591	2,915	2,946	3,534
5	Transport	79,202	95,634	107,594	118,137	127,353	140,644	144,338	158,942
6	Residential	35,561	36,765	41,965	47,559	53,868	55,430	50,662	47,853

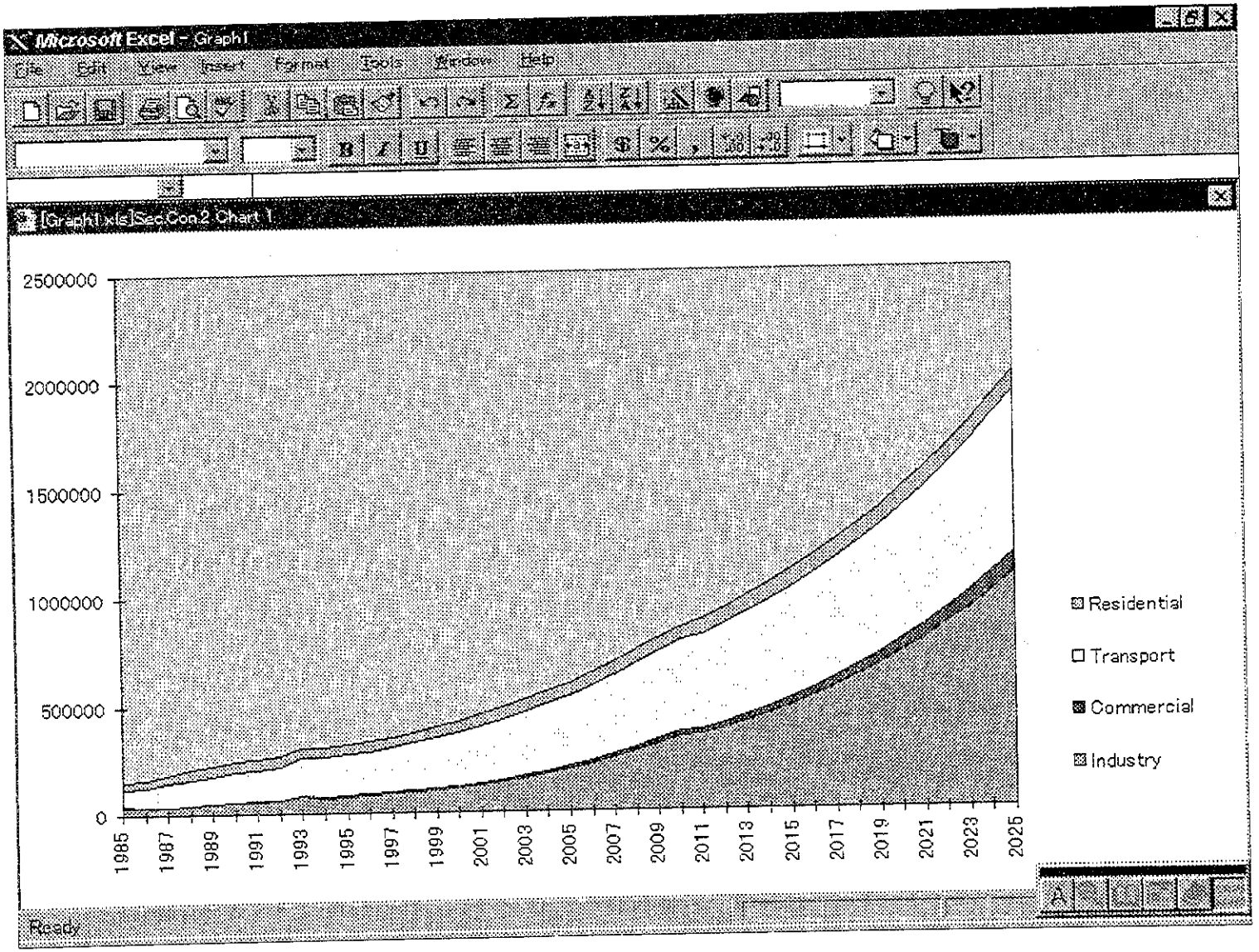
Graph1.XLS

Screen 092



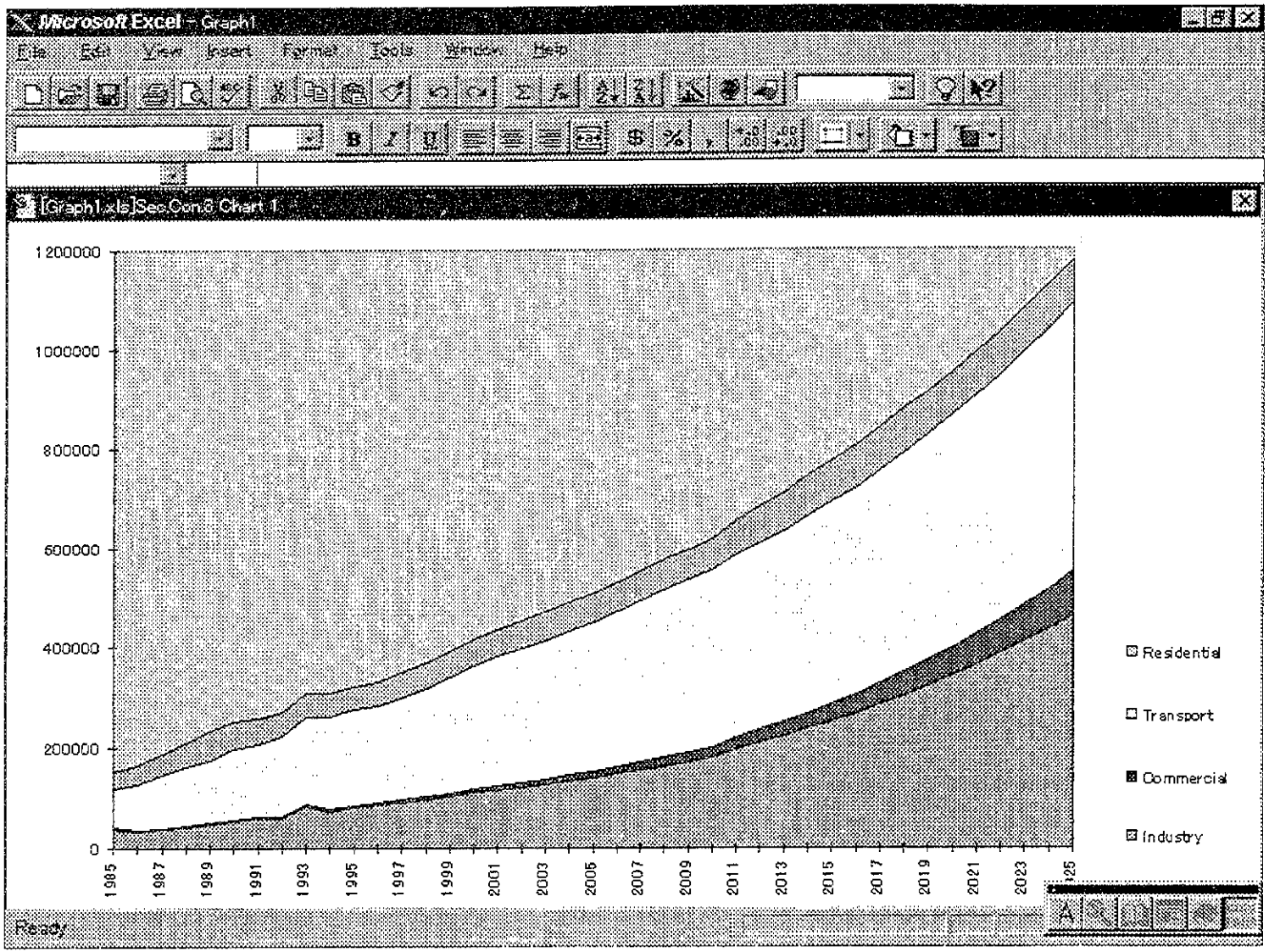
Sec.Con1

Screen 093



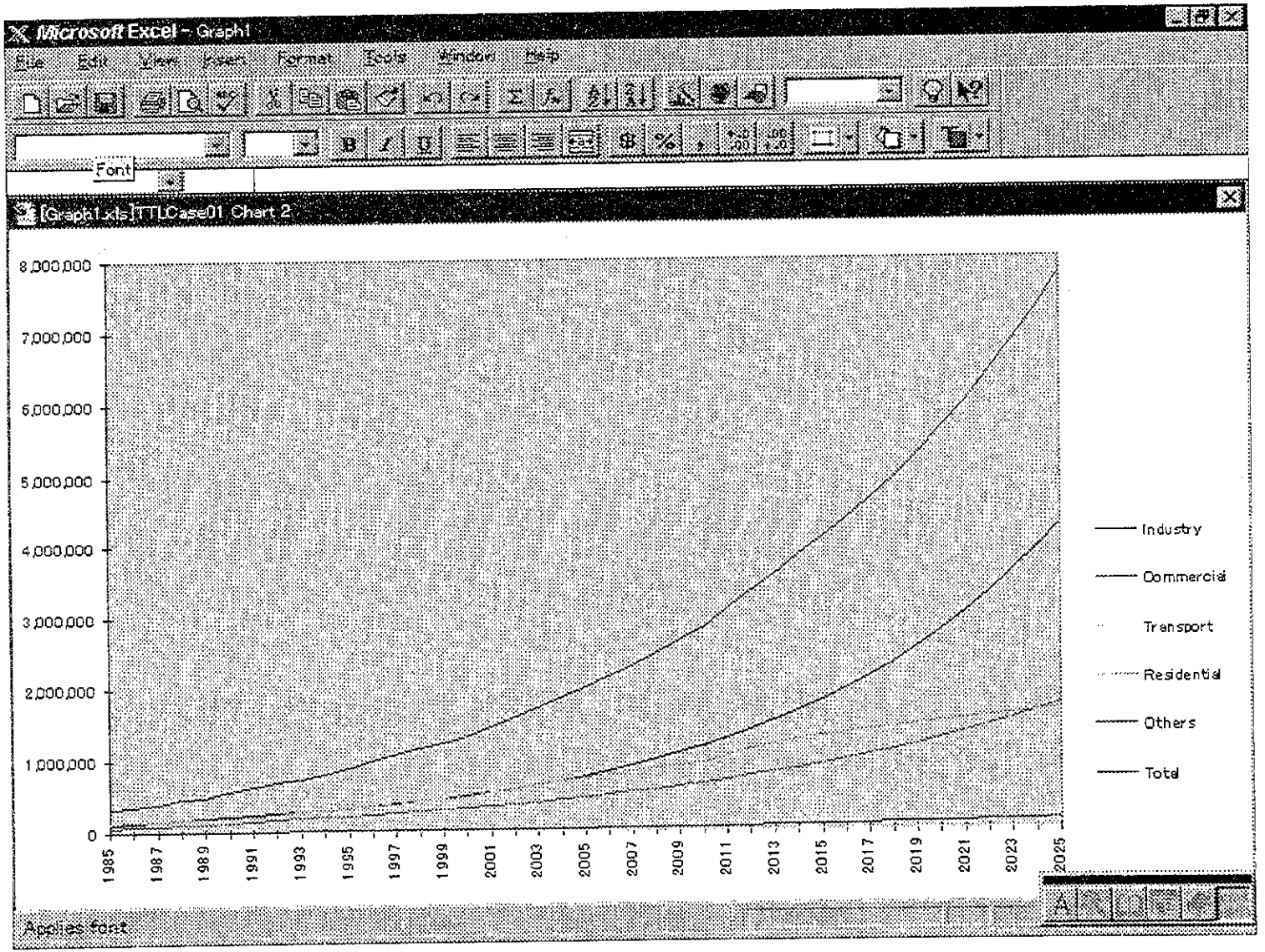
Sec.Con2

Screen 094



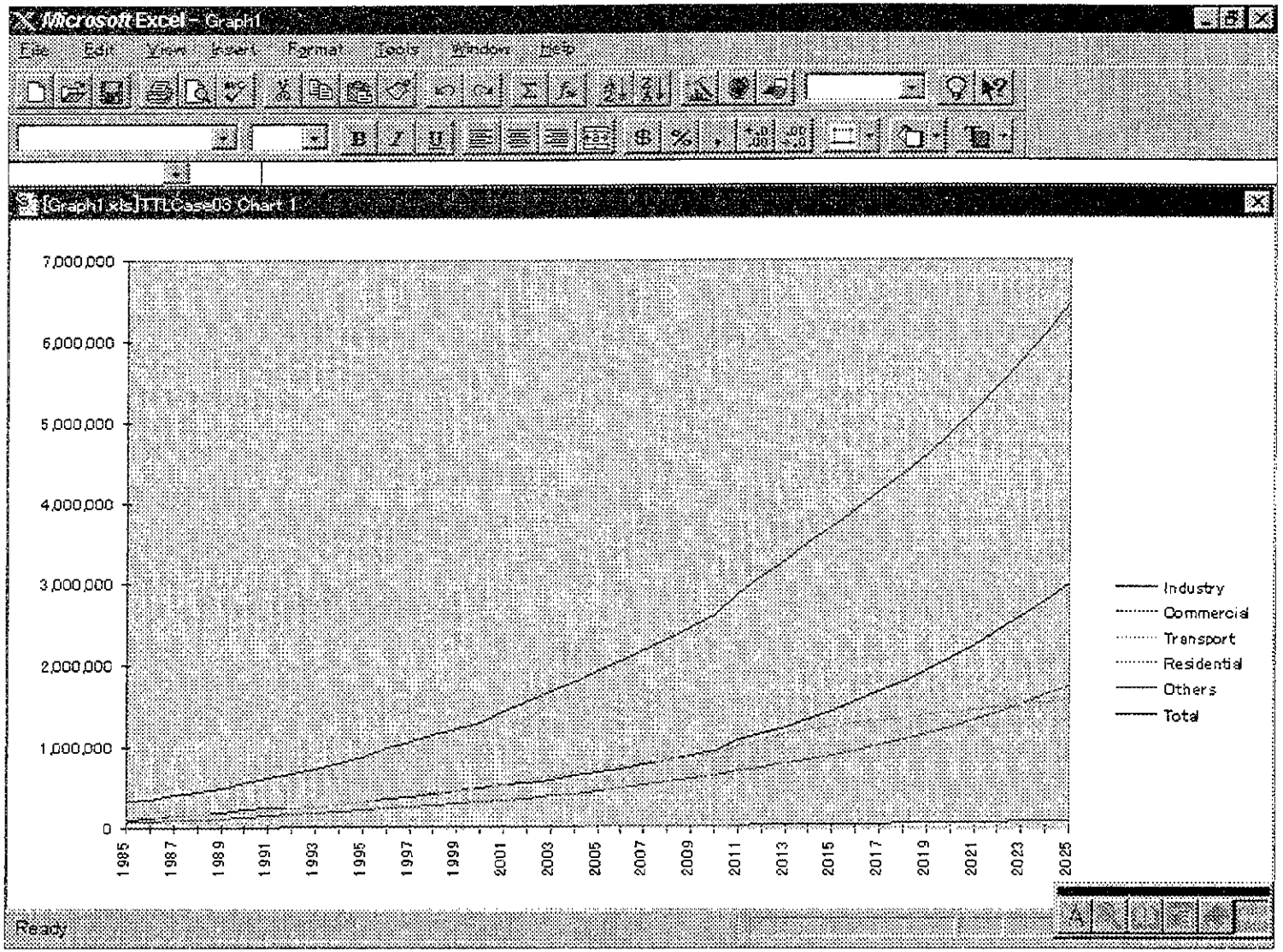
Sec.Con3

Screen 095

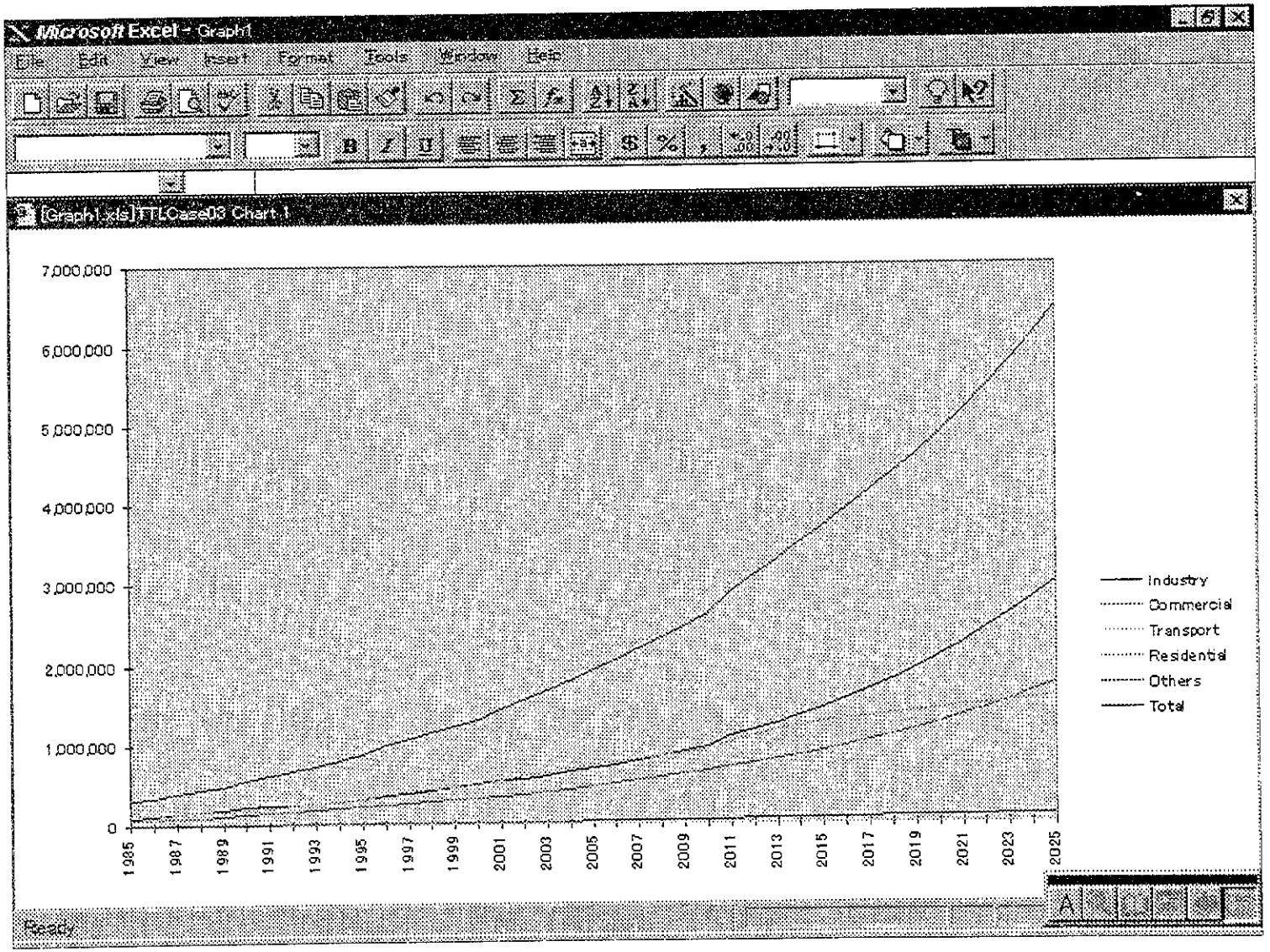


TTLCase1

Screen 096

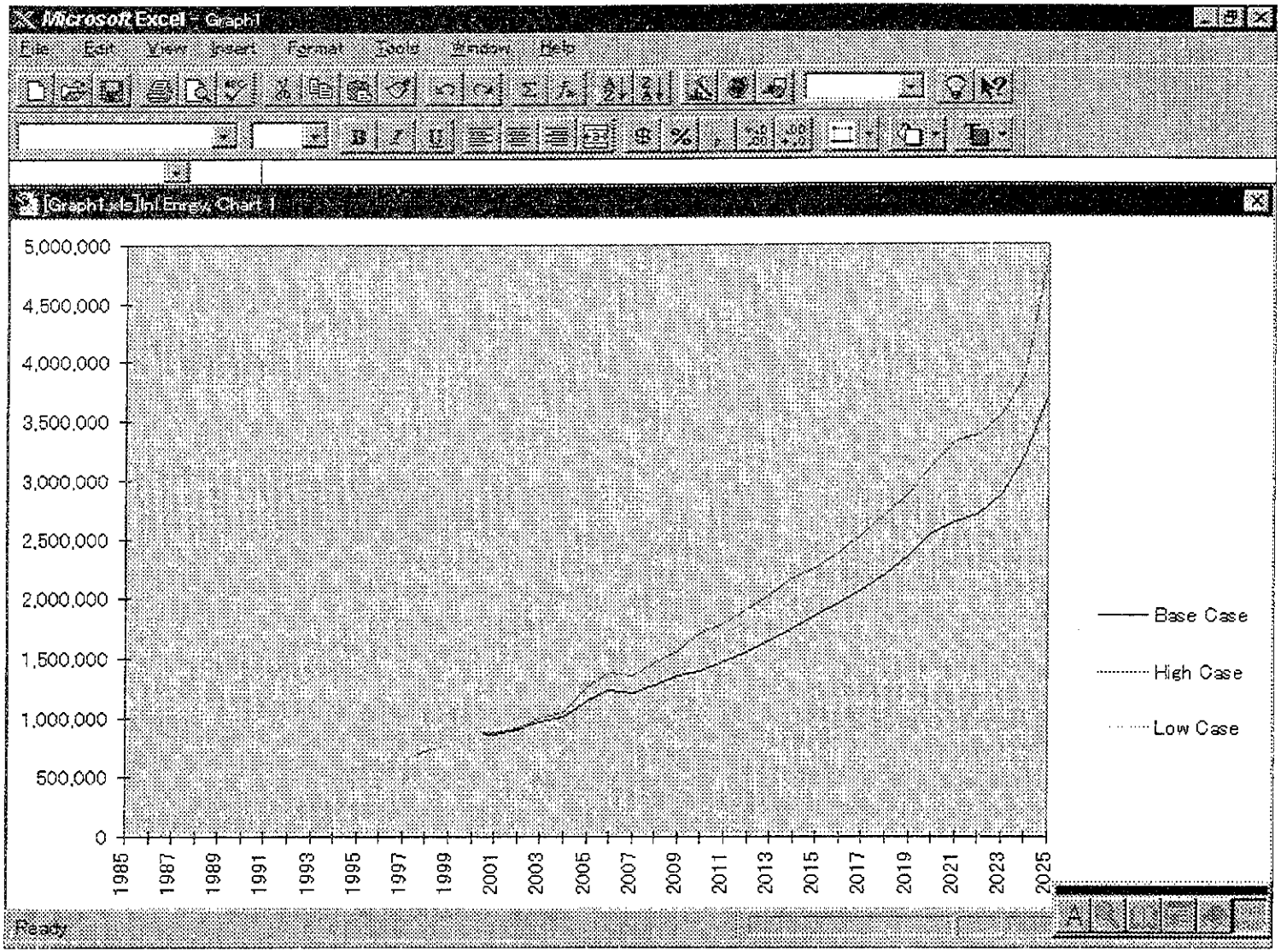


TTLCase2


Microsoft Excel - Graph1
File Edit View Insert Format Tools Window Help
[Graph1.xls]TTLCase03 Chart 1
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Industry
Commercial
Transport
Residential
Others
Total
Ready

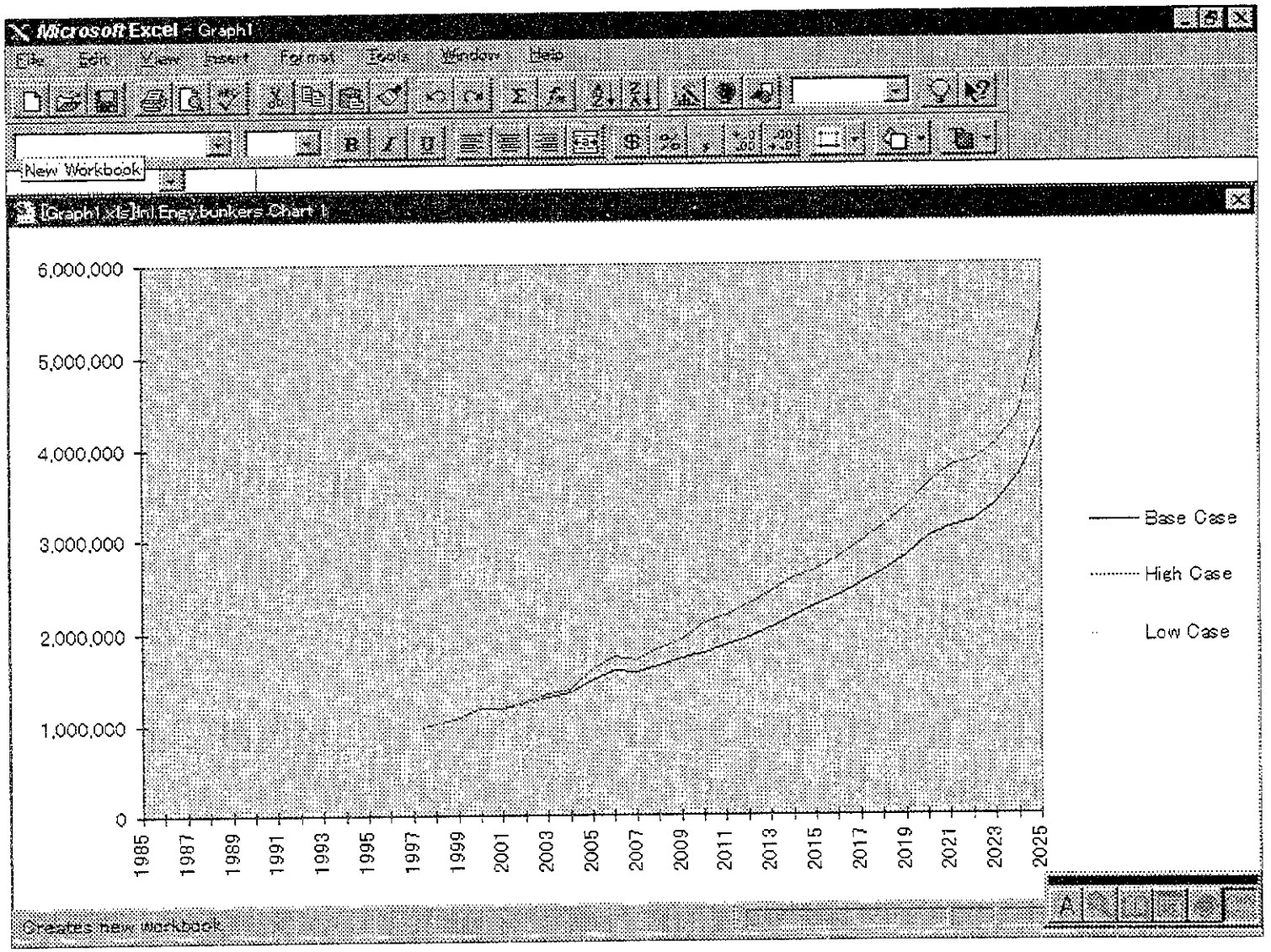
TTLCase3

Screen 098

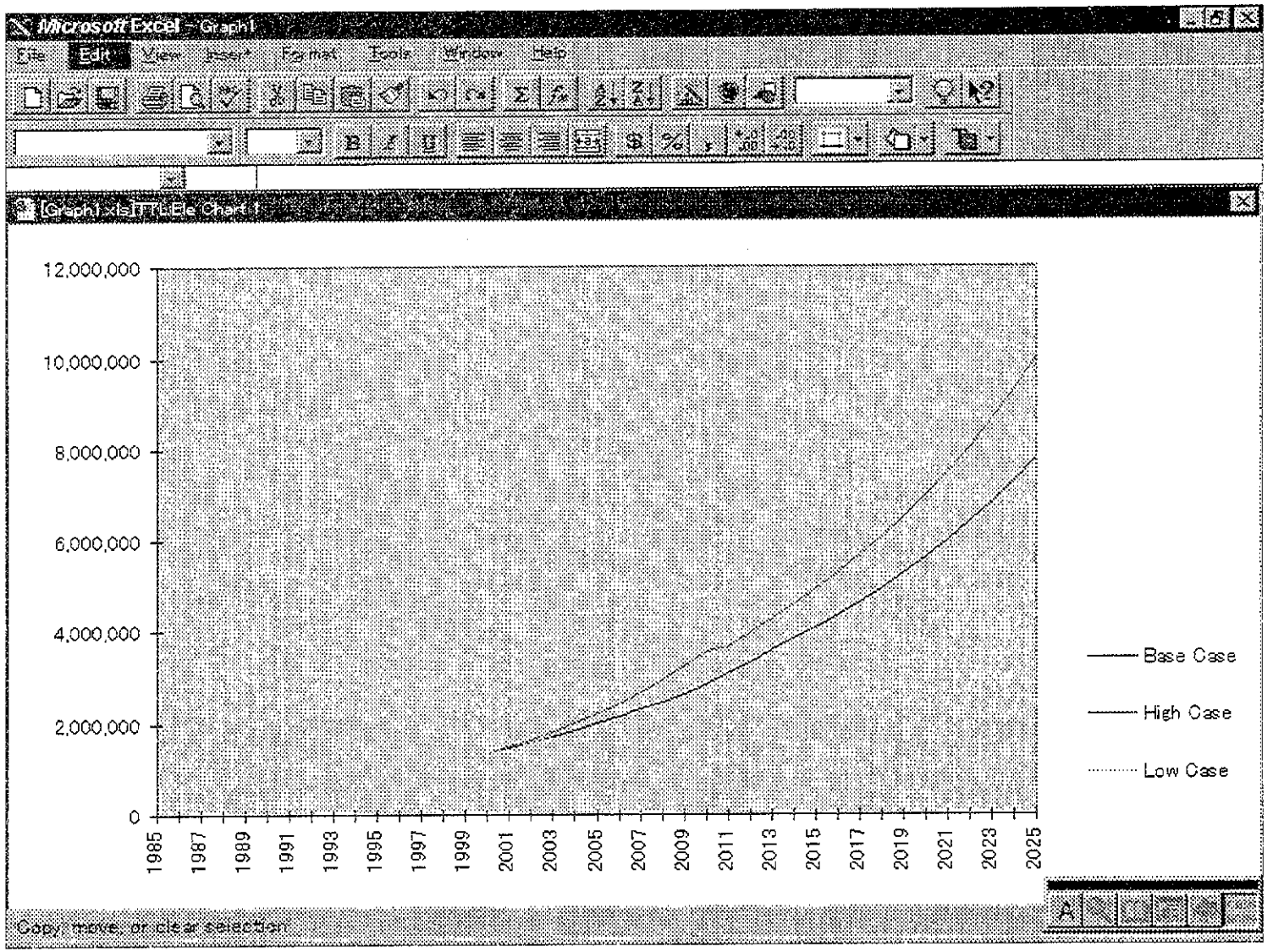


Ini.Enrgy

Screen 099

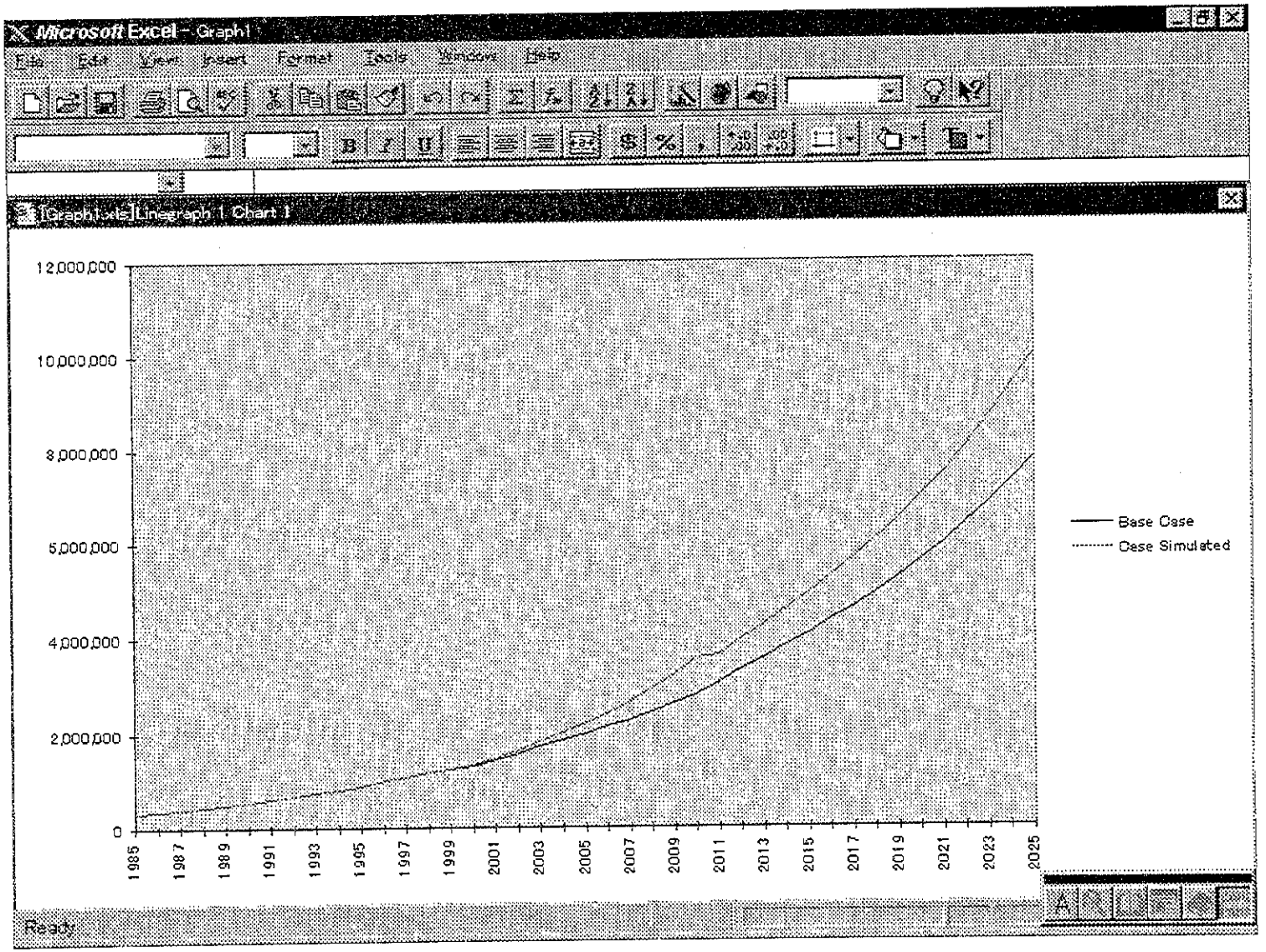


Inl.Energy,bunkers

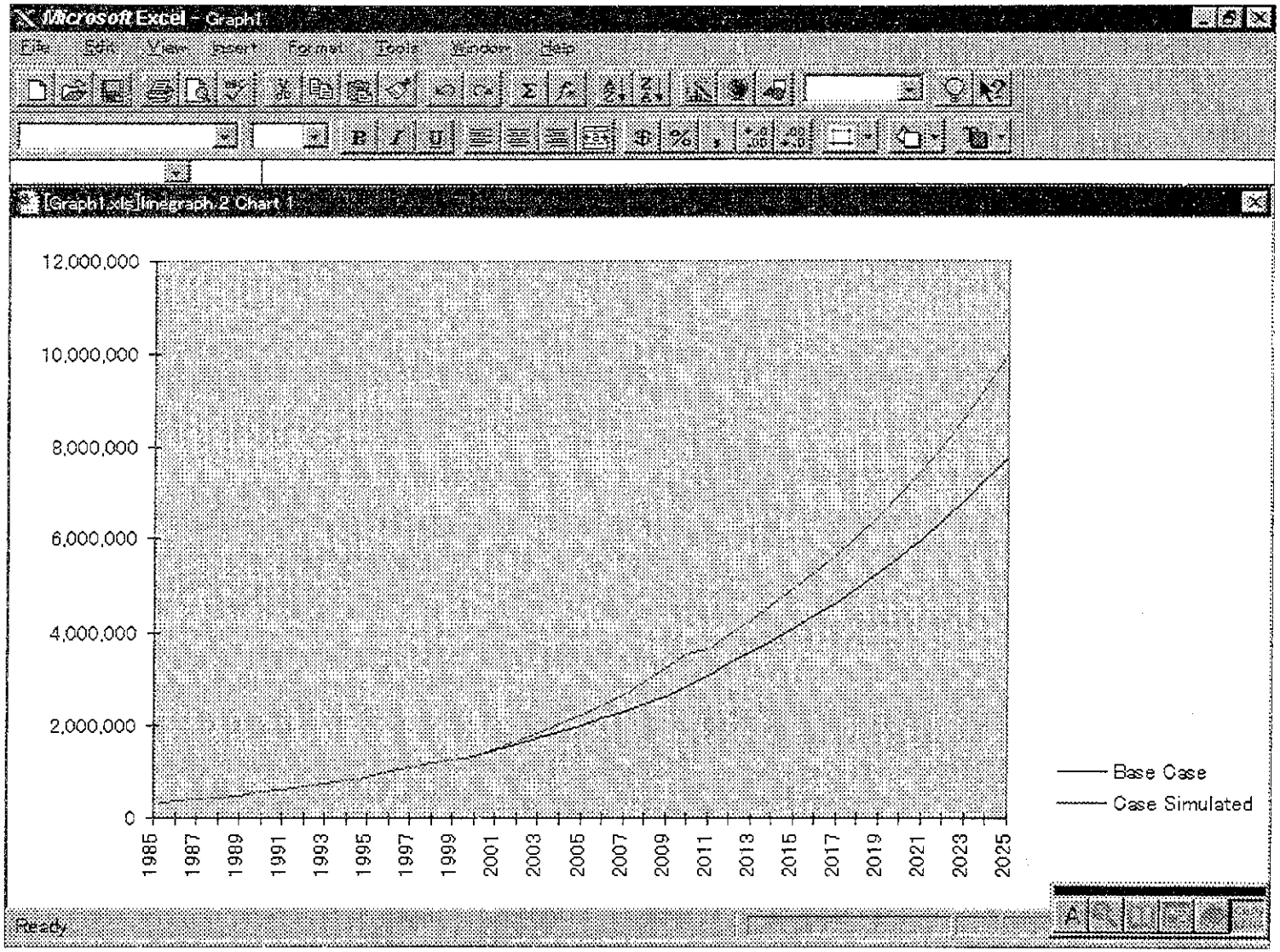

Microsoft Excel - Graph1
File Edit View Insert Format Tools Window Help
Graph1.xls:TTl.Ele Chart 1
12,000,000
10,000,000
8,000,000
6,000,000
4,000,000
2,000,000
0
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Base Case
High Case
Low Case
Copy, move, or clear selection

TTl.Ele

Screen 101

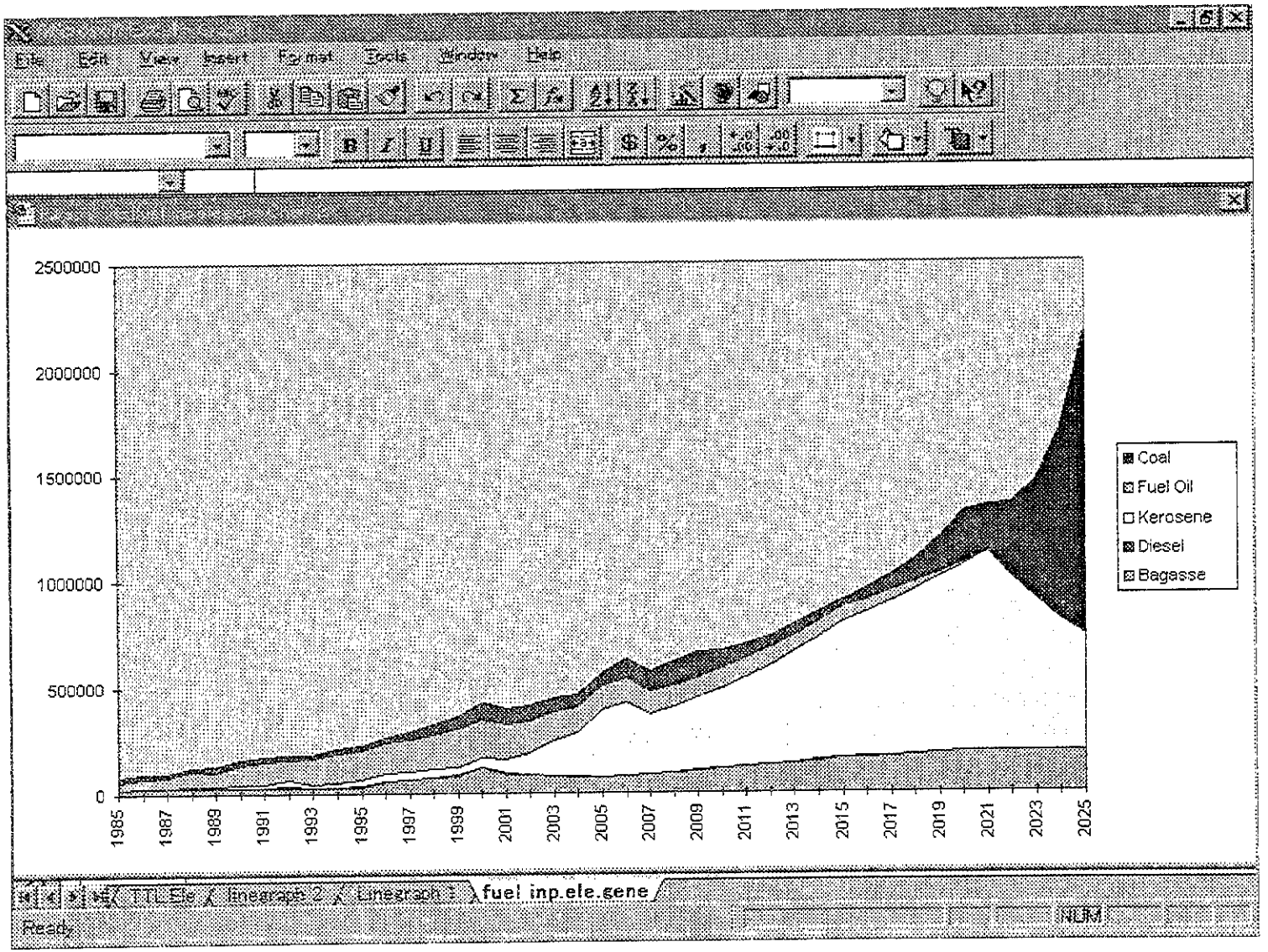


linegraph1


Microsoft Excel - Graph1
File Edit View Insert Format Tools Window Help
[Graph1.xls]linegraph 2 Chart 1
12,000,000
10,000,000
8,000,000
6,000,000
4,000,000
2,000,000
0
1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015 2017 2019 2021 2023 2025
Base Case
Case Simulated
Ready

linegraph2

Screen 103



fuelinp.ele.gene

4.20 Structure of File Linkage

Figure 4-17 shows the overall link structure for all files in this energy database.

This link structure can basically be viewed under the assumption that all 16 files in the energy database are linked to the **Energy_Case_01.XL** master file. However, some of these files are linked directly while others are linked indirectly. When a file is directly linked to the **Energy_Case_01.XLS** master file, it indicates that whenever all or part of **Energy_Case_01.XLS** is revised or updated, that the related items in the linked file are also automatically revised or updated by an automatic file transfer function. Examples of this type of file are the **Conversion_Factor.XLS** file and the four **Balance_Table** files.

When a file is indirectly linked, it indicates that when the **Energy_Case_01.XLS** file is revised or updated in some way that some of the related items in the linked file must be updated manually. Examples of this type of file are **REGM_Macro.XLS, REGE_macro.XLS**, and the **Abbreviations_List.XLS**. In the case of these files, they can be updated easily through a simple, repetitive cut-and-paste procedure. This is not a particularly difficult job as other cells within the file which are affected are revised and updated automatically as the process proceeds. For example, suppose it becomes necessary to revise and update some macro-economic and historical energy demand data within the **Energy_Case_01.XLS** file from 1985 to 1995. It will naturally become necessary to update the historical data contained in the **Eng** sheet of the **REGM_Macro.XLS** file and the **REGE_Macro.XLS** file which use this historical data to perform regression analysis. In this case, the operator needs to copy the historical data for 1985 through 1995 from **Energy_Case_01.XLS** and paste it into both of these files. Once this procedure is complete, the job of deriving computations and results necessary for regression analysis performed using other sheets within the same files will be handled automatically.

Chapter 6 gives a description of revision and update procedures for all files which are directly and indirectly linked to **Energy_Case_01.XLS**.

Table 4-1 Layer Structure of Energy Database

Desktop:\

Network Neighborhood:\

Energy_Data_Base:\

1. Main_Menu.XLS
2. Energy_Case_01.XLS
3. Energy_Case_02.XLS
4. Energy_Case_03.XLS
5. REGM_Macro.XLS
6. REGE_Macro.XLS
7. Conversion_Factor.XLS
8. Abbreviation_List.XLS
9. Base_Case.XLS
10. Check_Outcome.XLS
11. Case_Simulation.XLS
12. Outcome_Simulation.XLS
13. Balance_Table_1995.XLS
14. Balance_Table_2000.XLS
15. Balance_Table_2010.XLS
16. Balance_Table_2025.XLS
17. Energy_Demand_Forecast.XLS

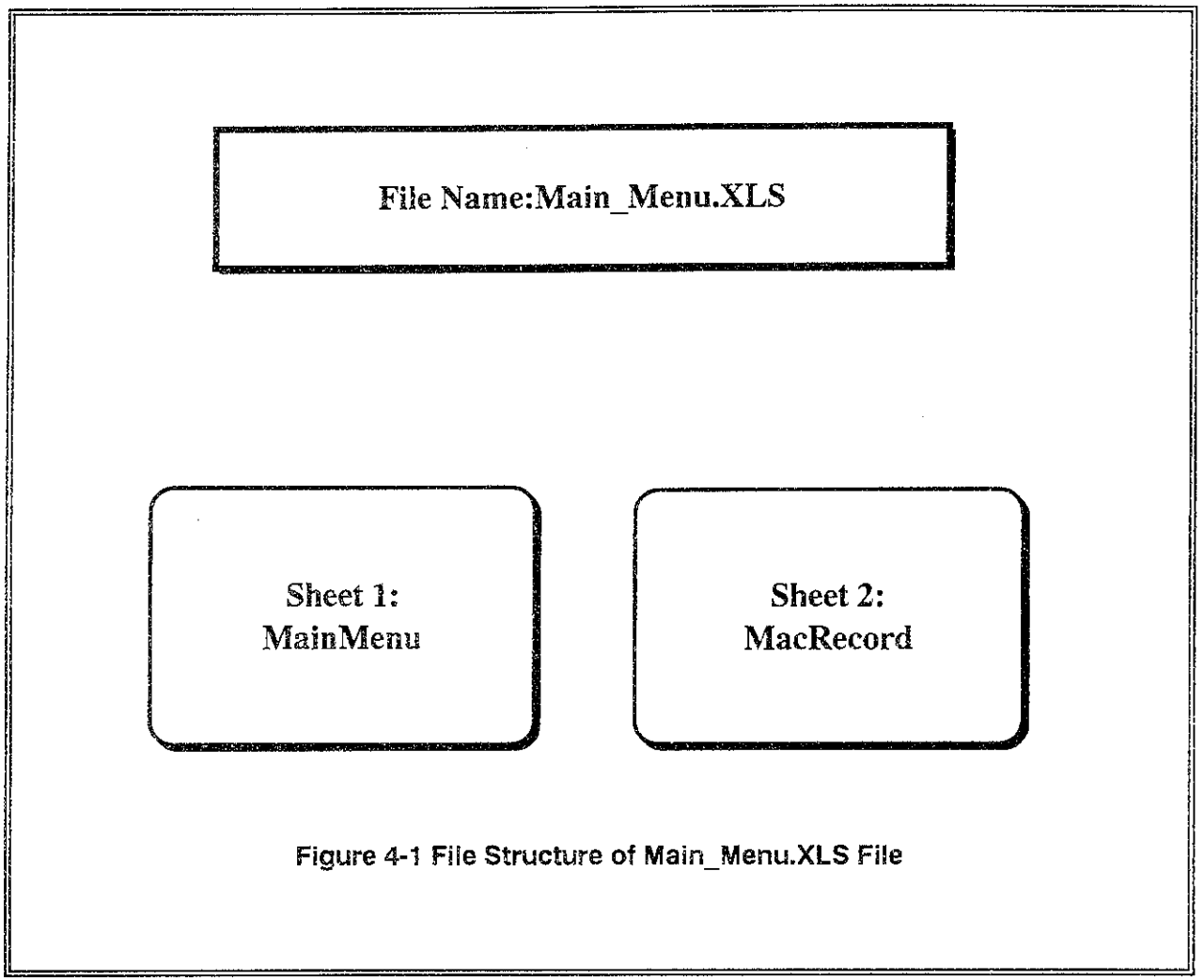


Figure 4-1 File Structure of Main_Menu.XLS File

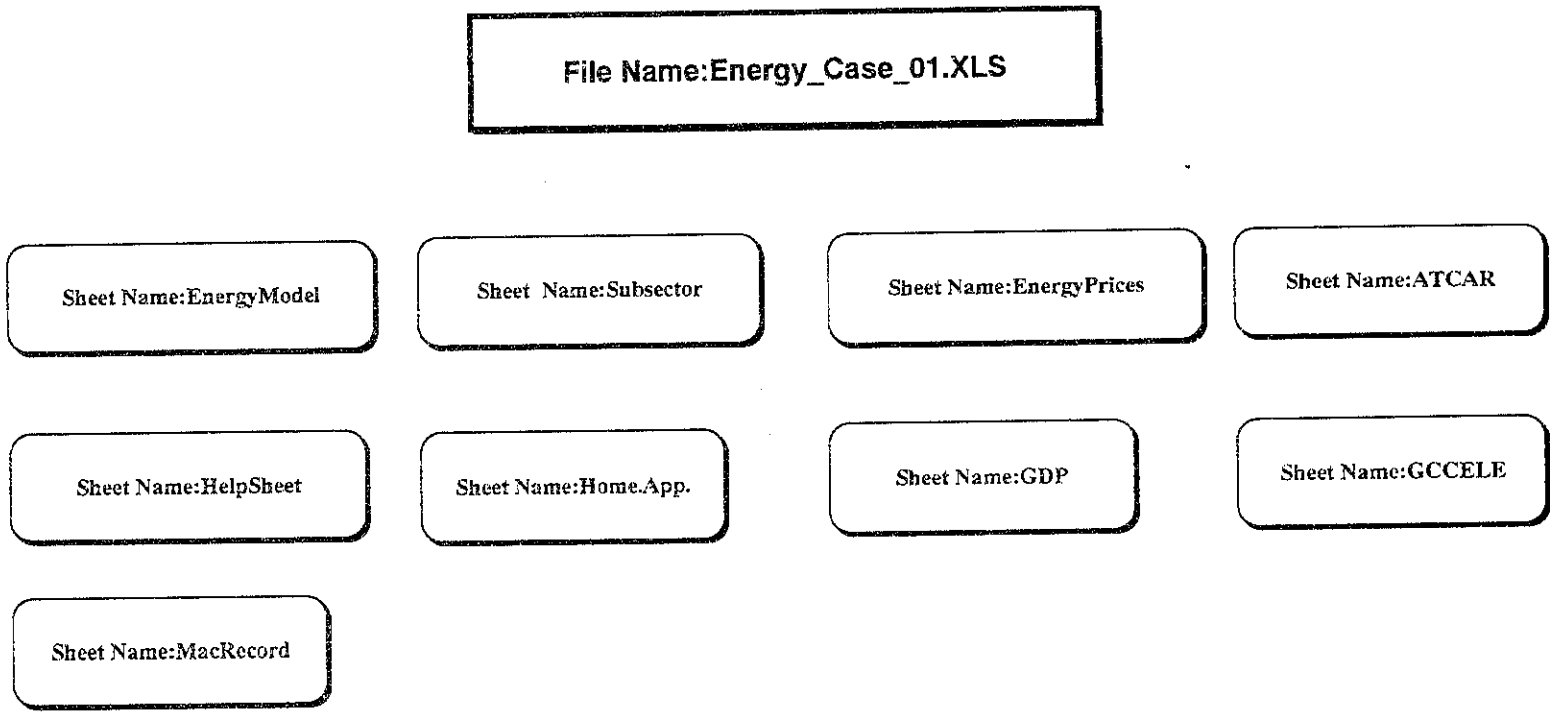


Figure 4-2 File Structure of Energy_Case_01.XLS File

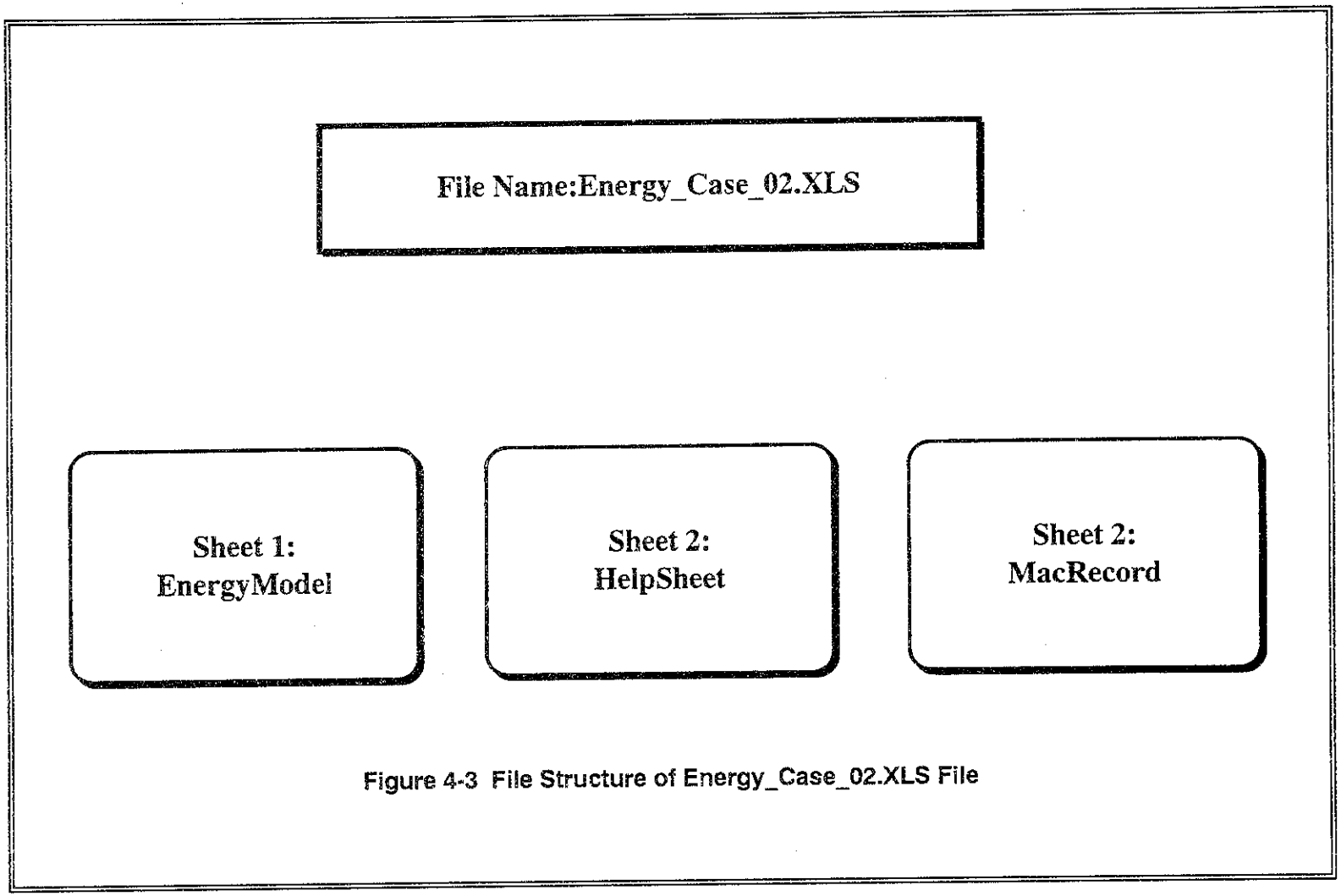


Figure 4-3 File Structure of Energy_Case_02.XLS File

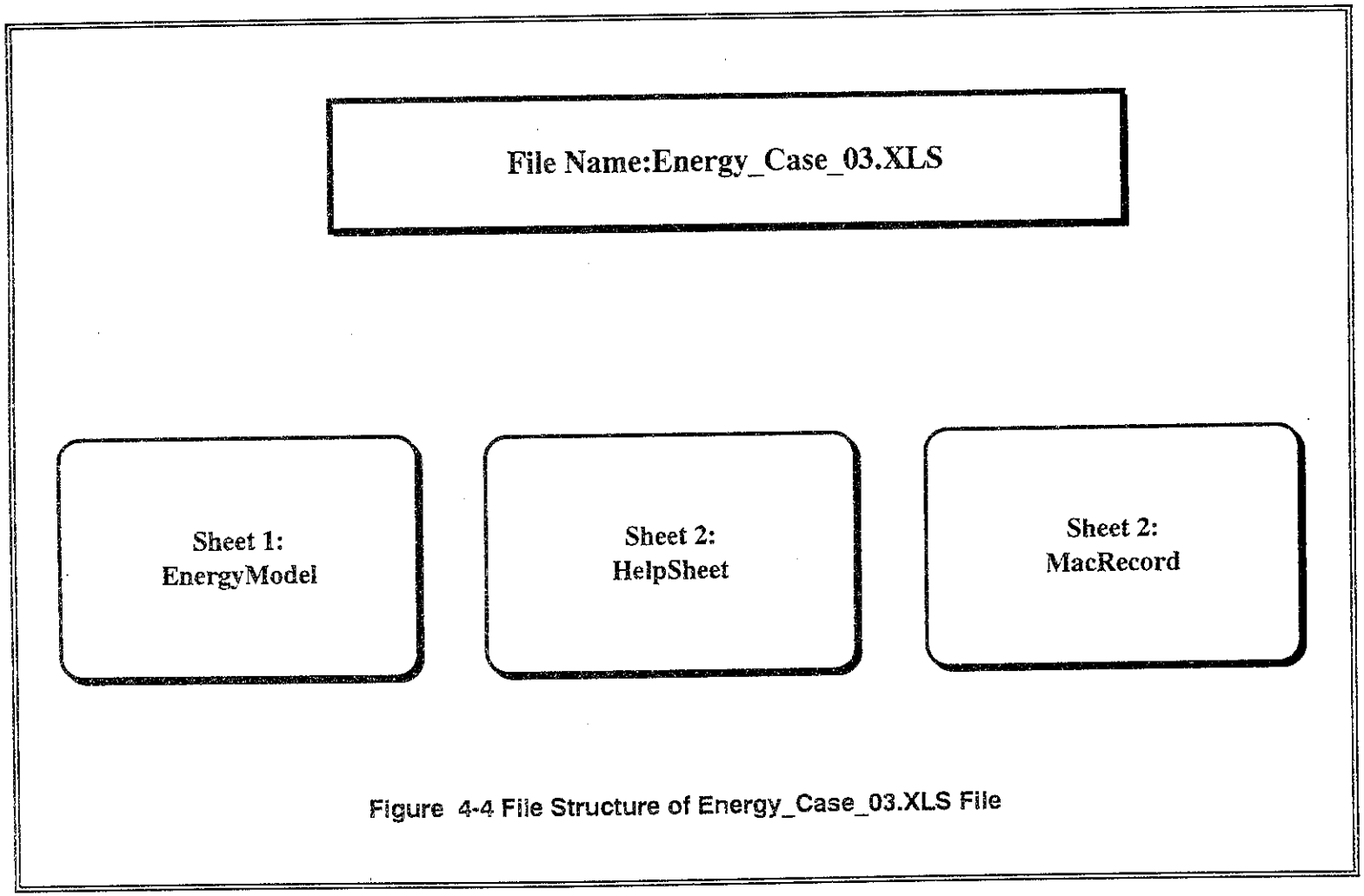


Figure 4-4 File Structure of Energy_Case_03.XLS File

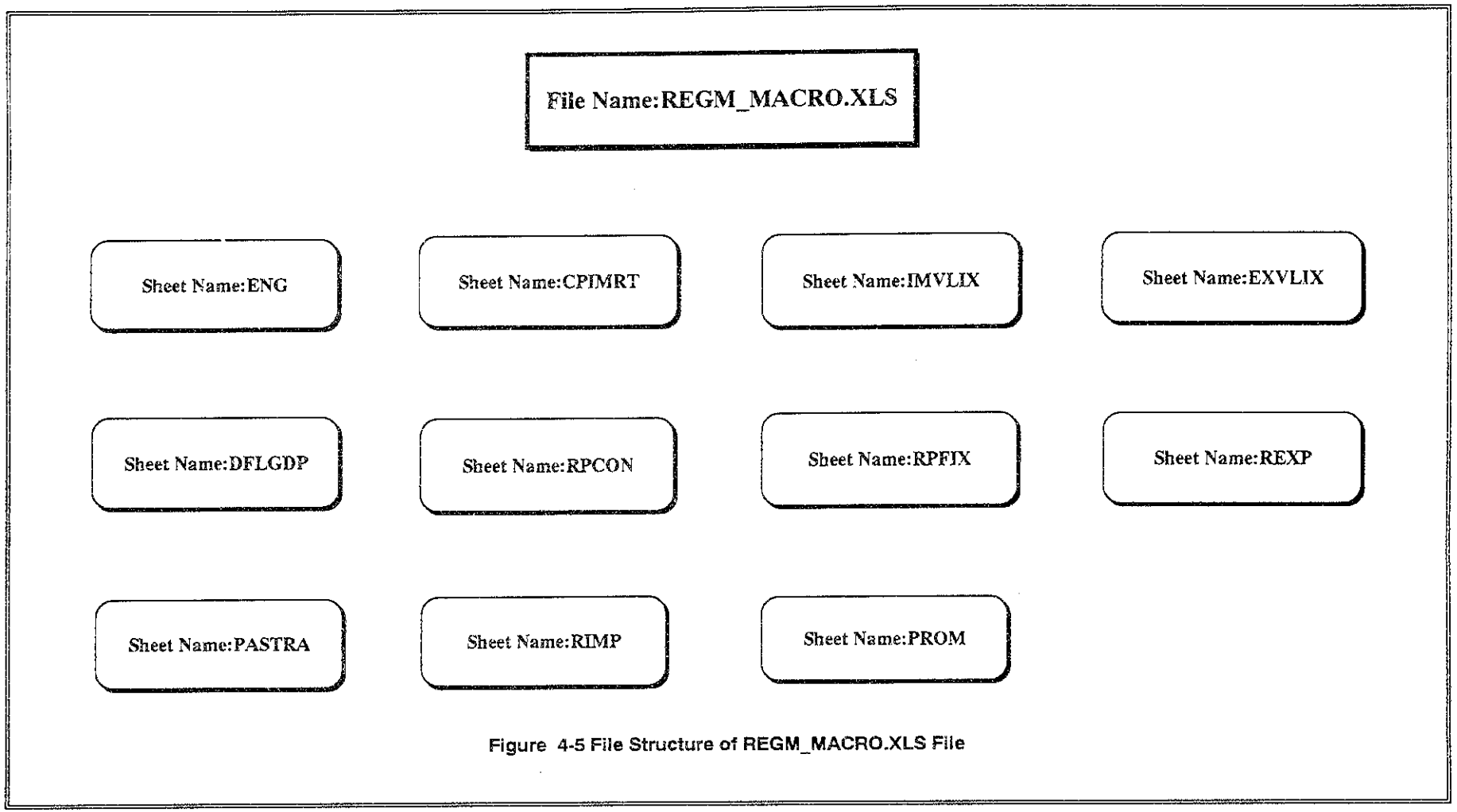


Figure 4-5 File Structure of REGM_MACRO.XLS File

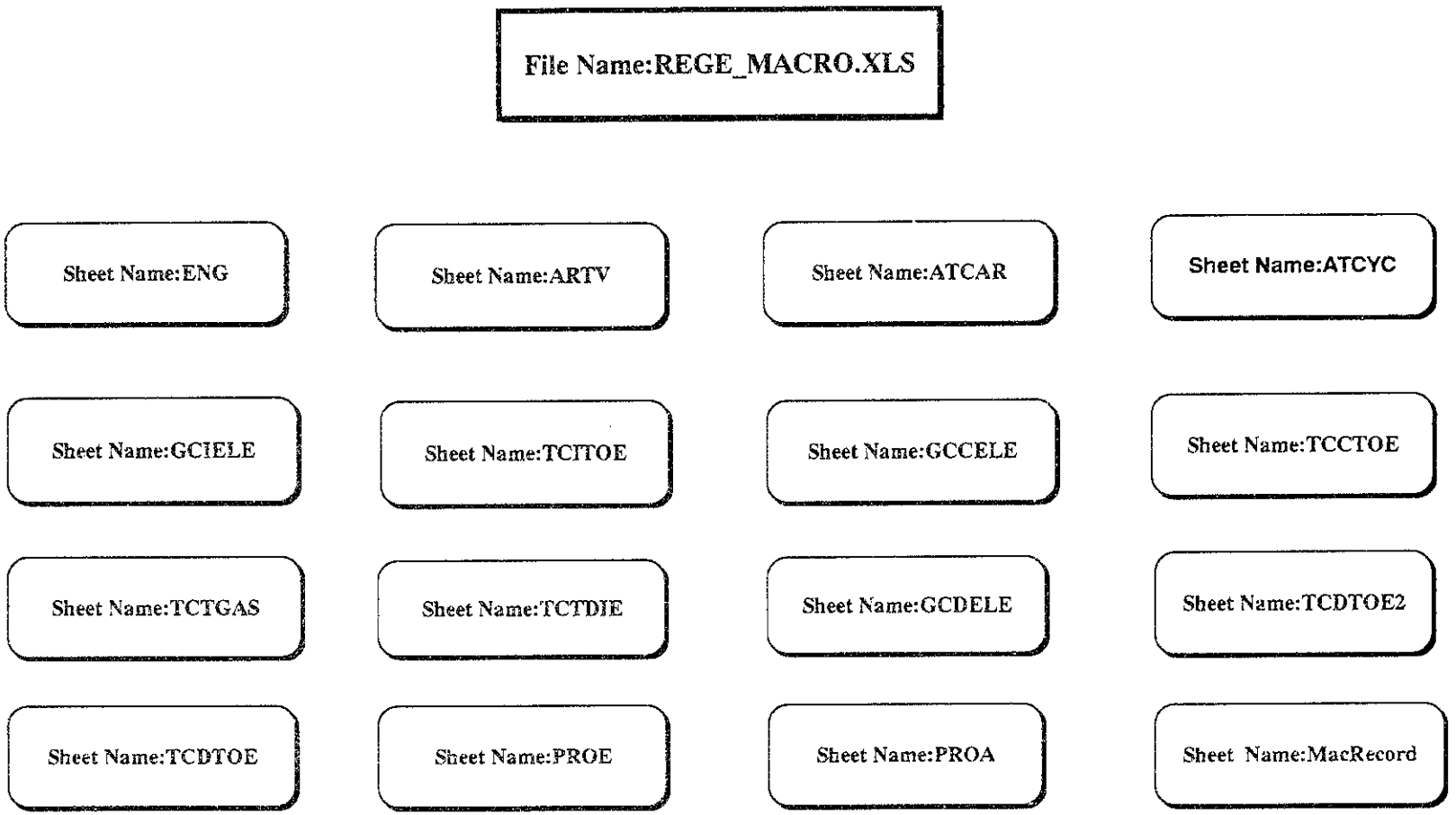


Figure 4-6 File Structure of REGE_MACRO.XLS File

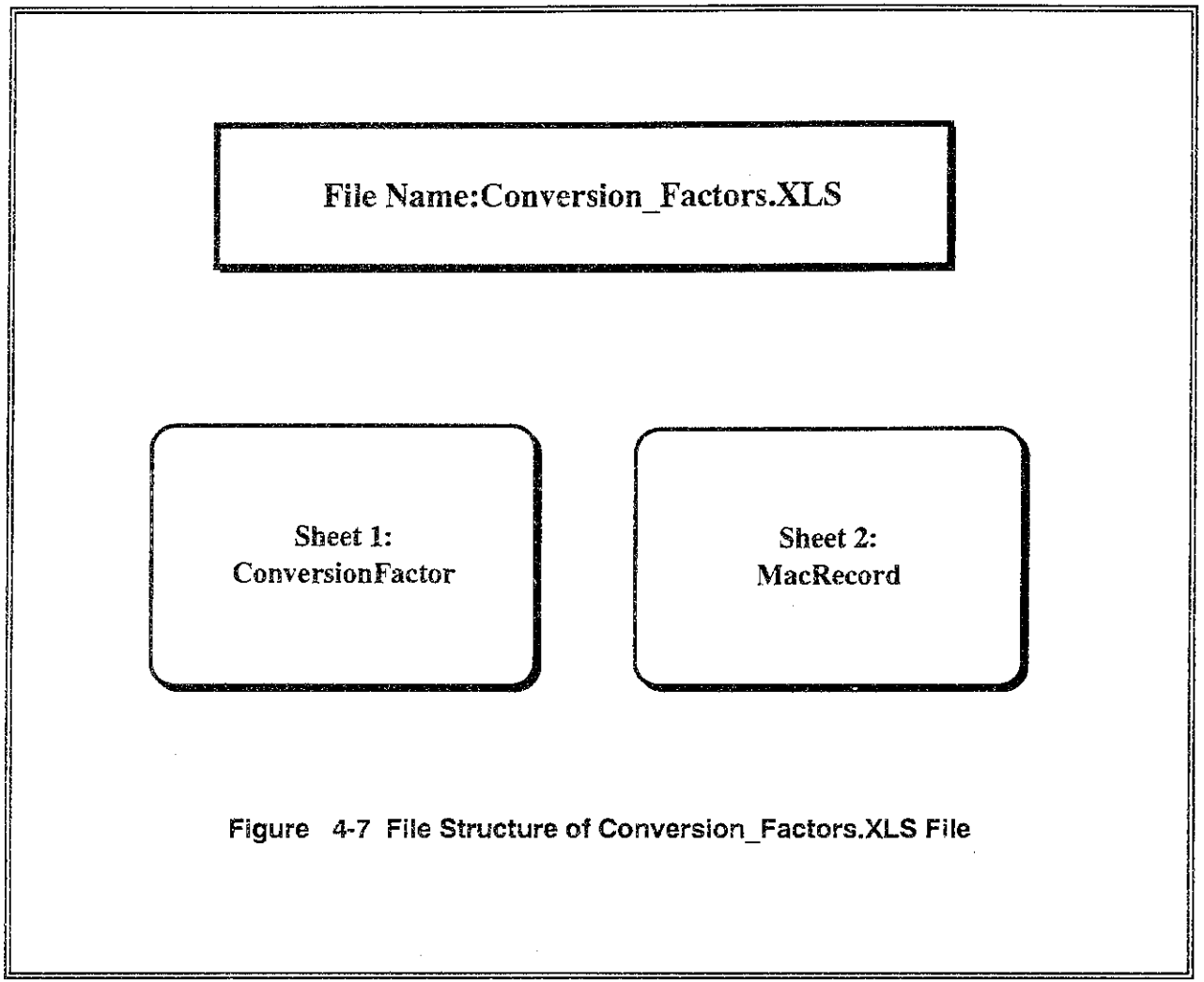


Figure 4-7 File Structure of Conversion_Factors.XLS File

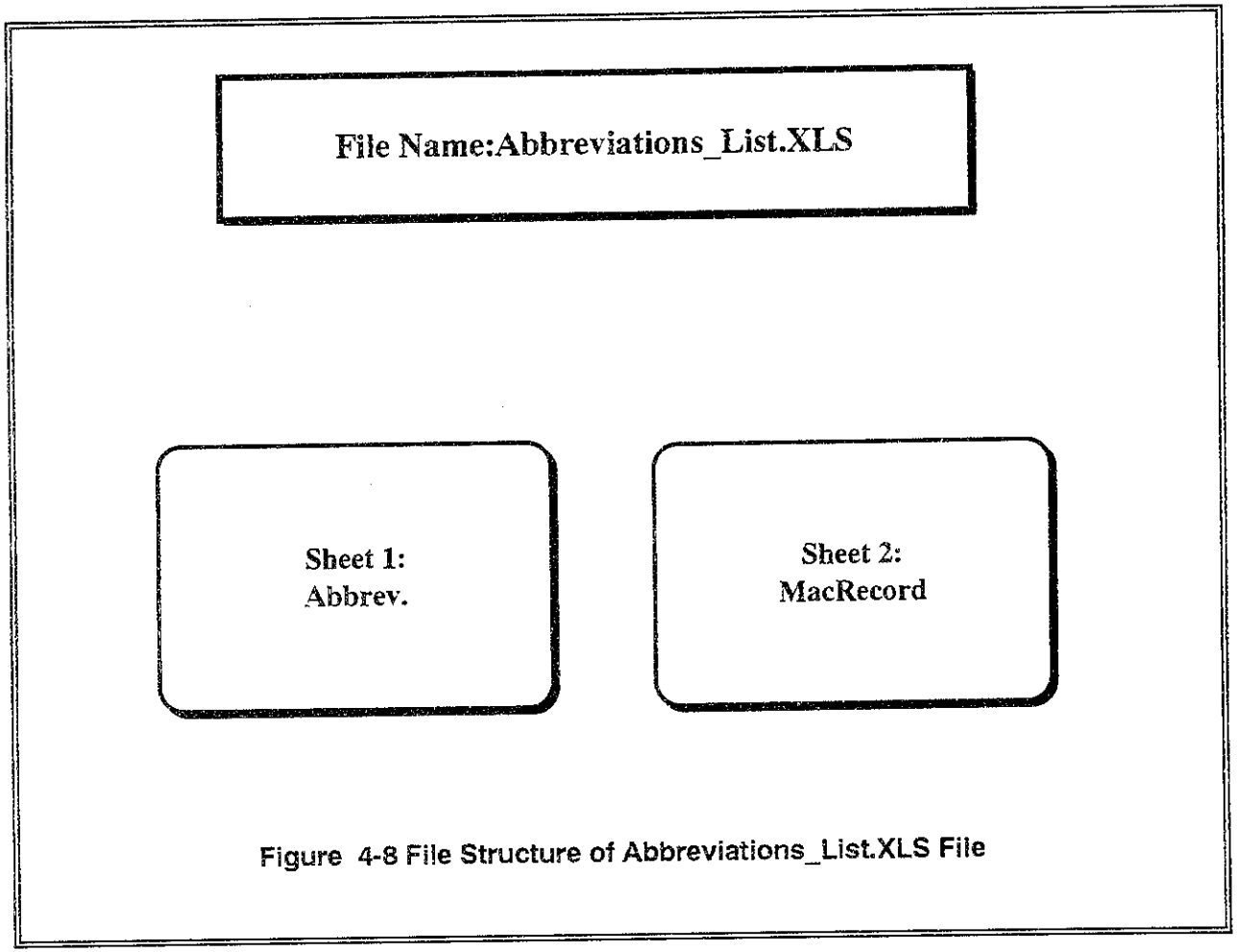


Figure 4-8 File Structure of Abbreviations_List.XLS File

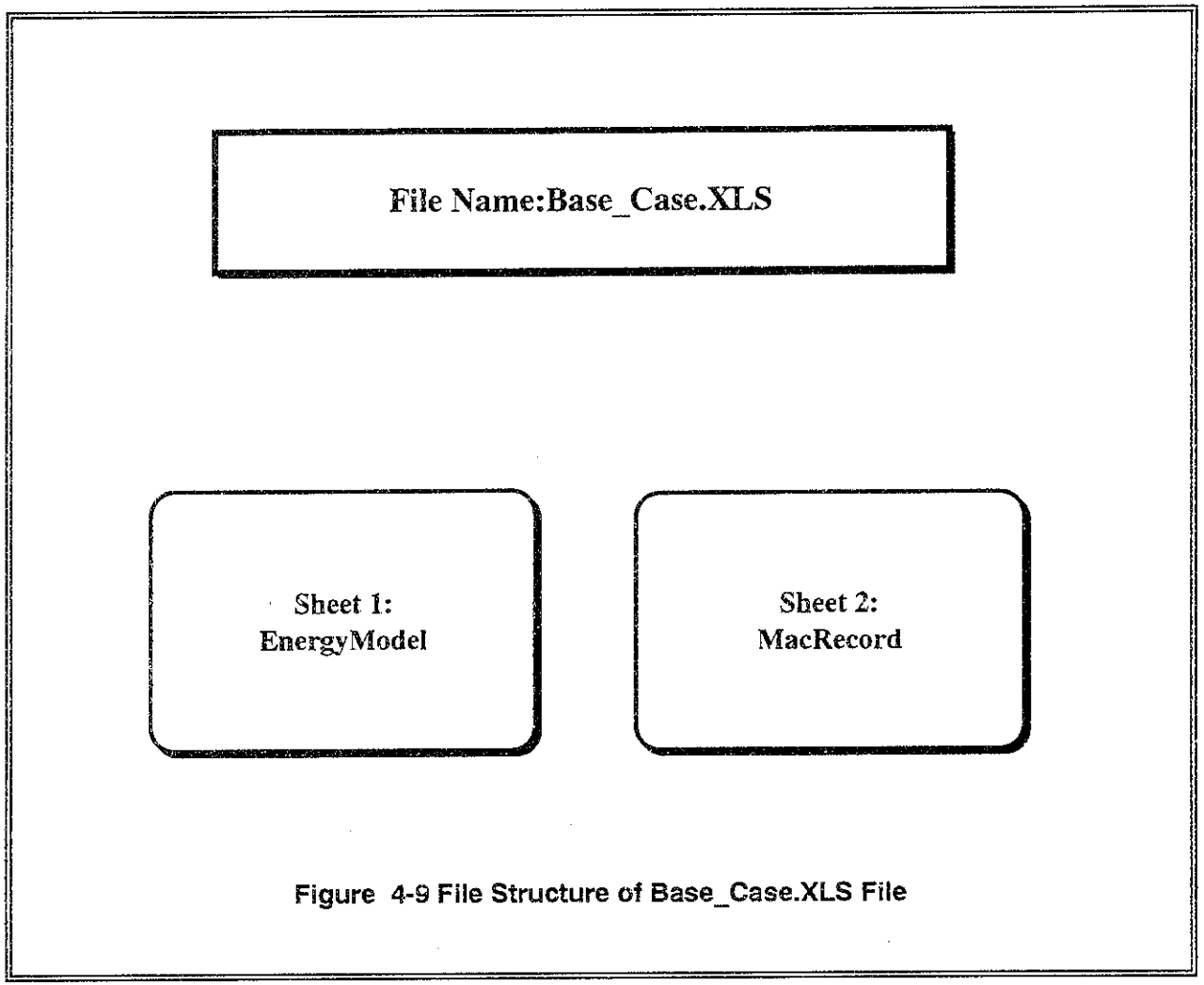


Figure 4-9 File Structure of Base_Case.XLS File

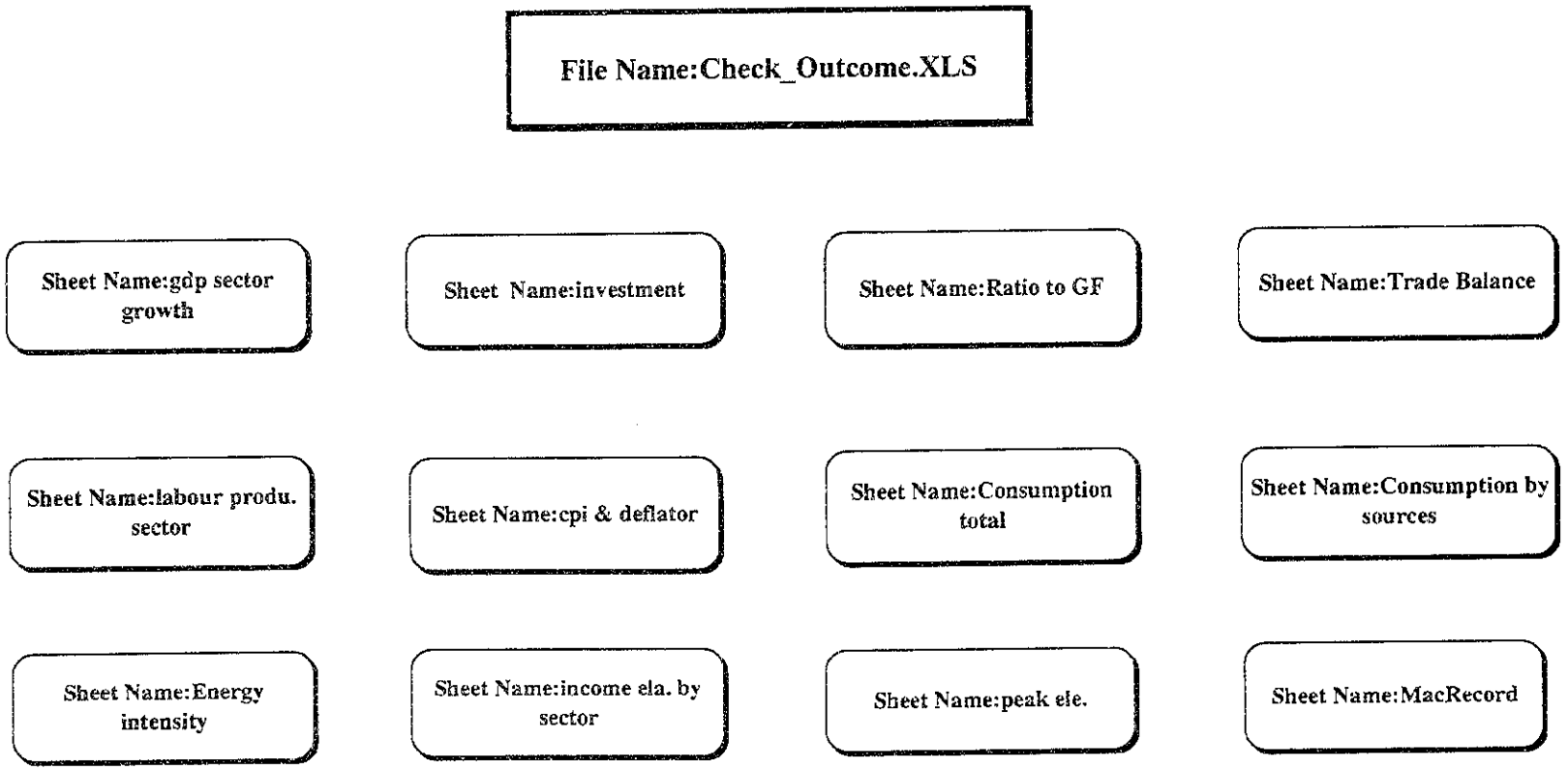


Figure 4-10 File Structure of Check_Outcome.XLS File

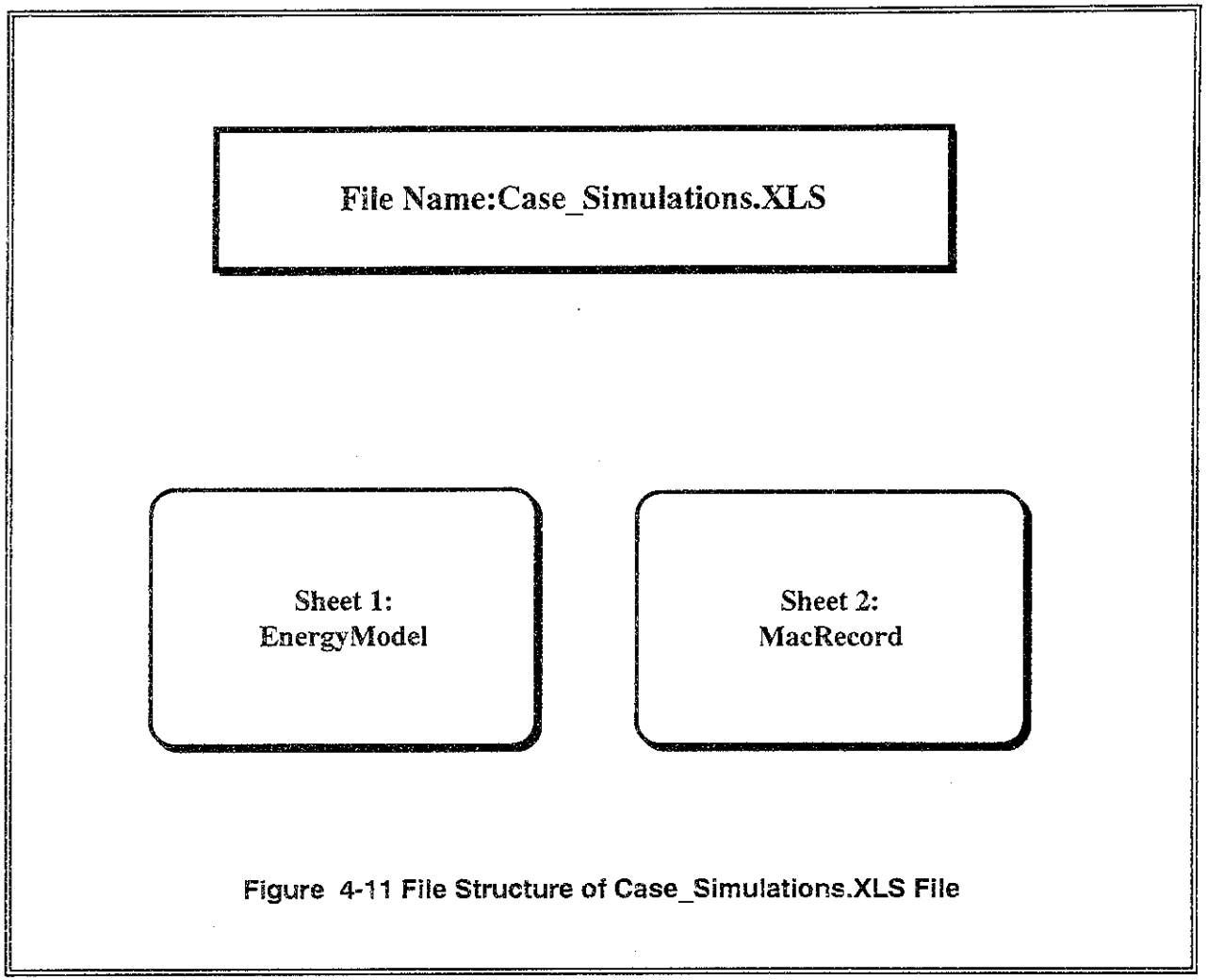


Figure 4-11 File Structure of Case_Simulations.XLS File

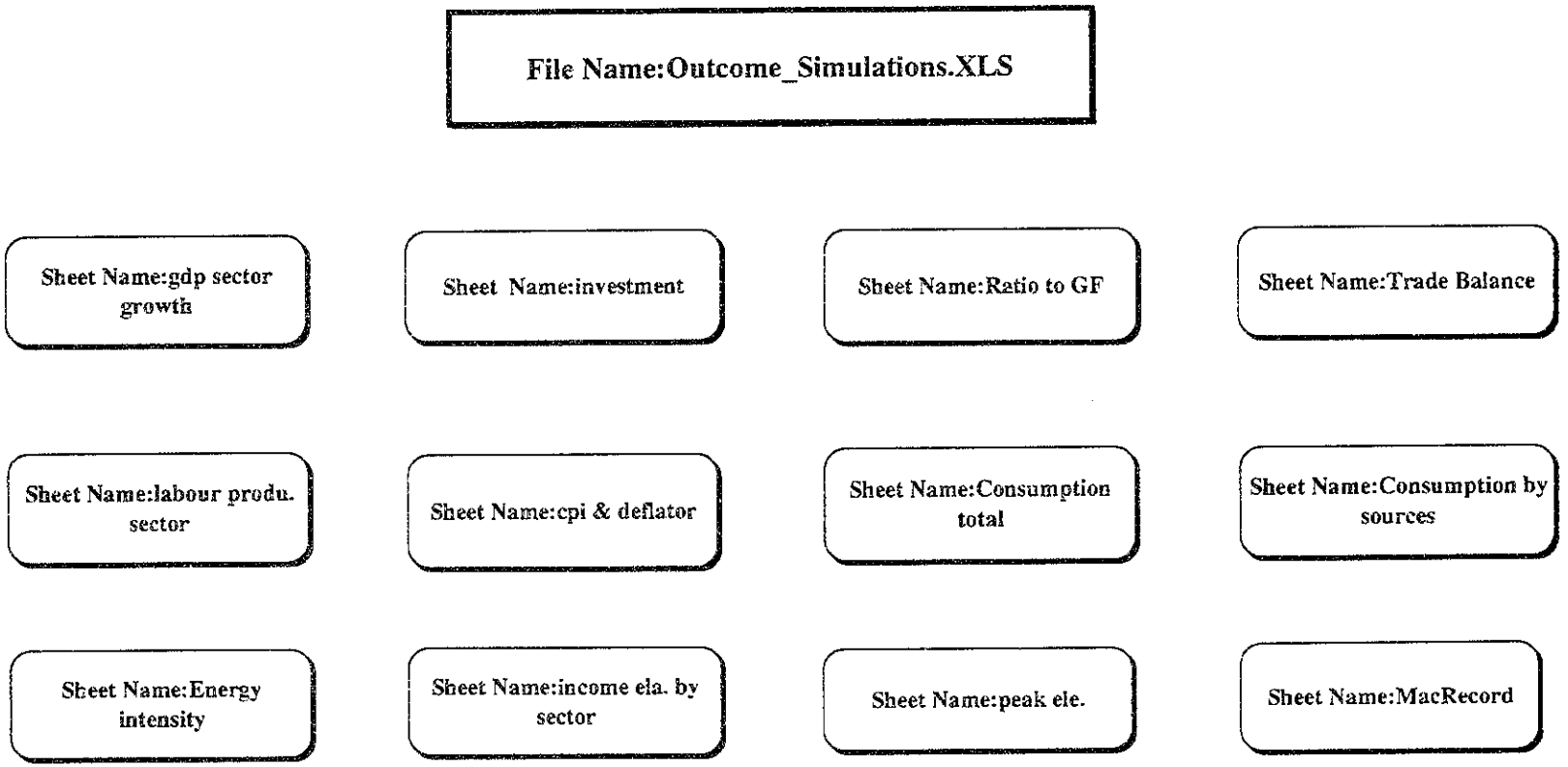


Figure 4-12 File Structure of Outcome_Simulations.XLS File

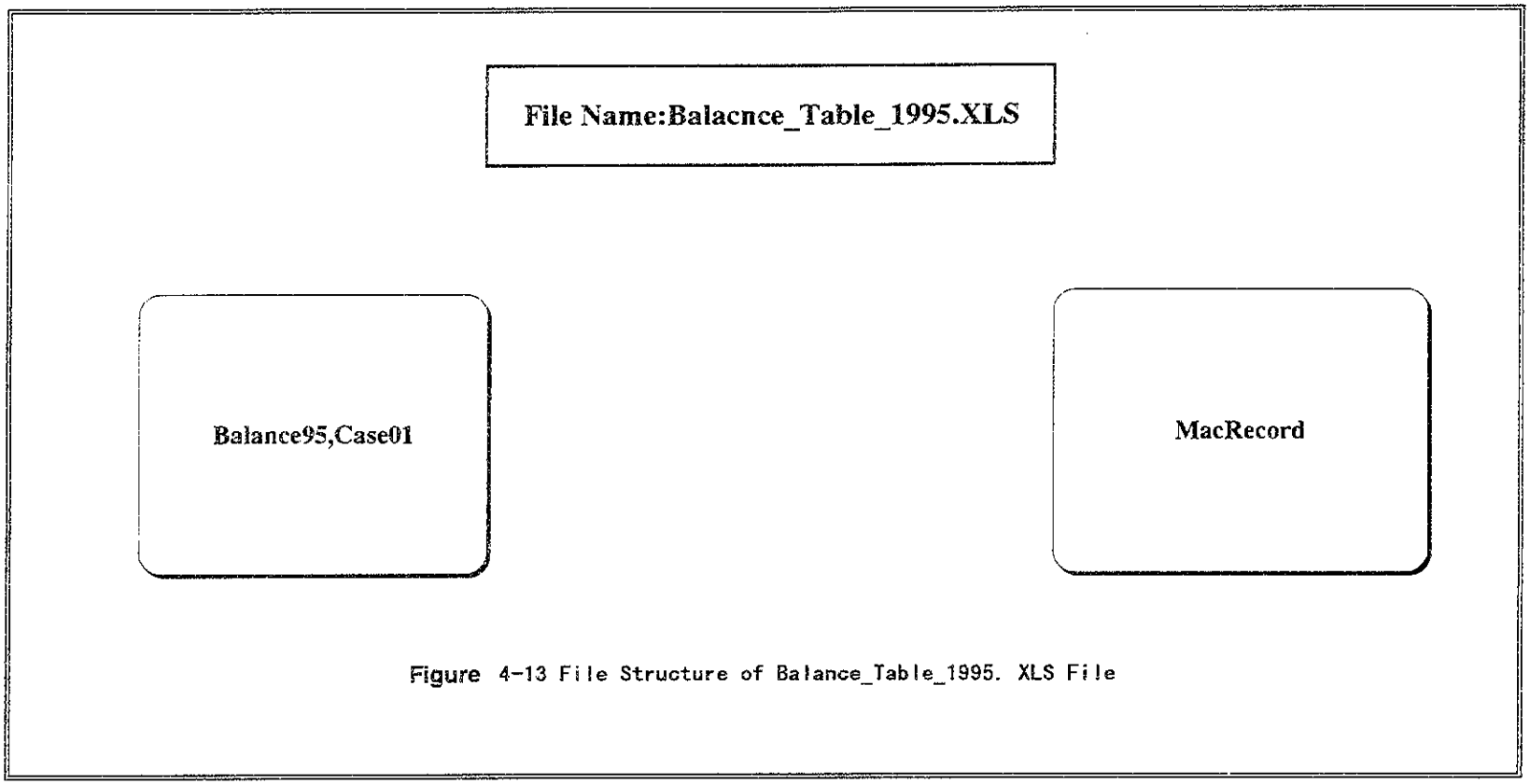


Figure 4-13 File Structure of Balance_Table_1995. XLS File

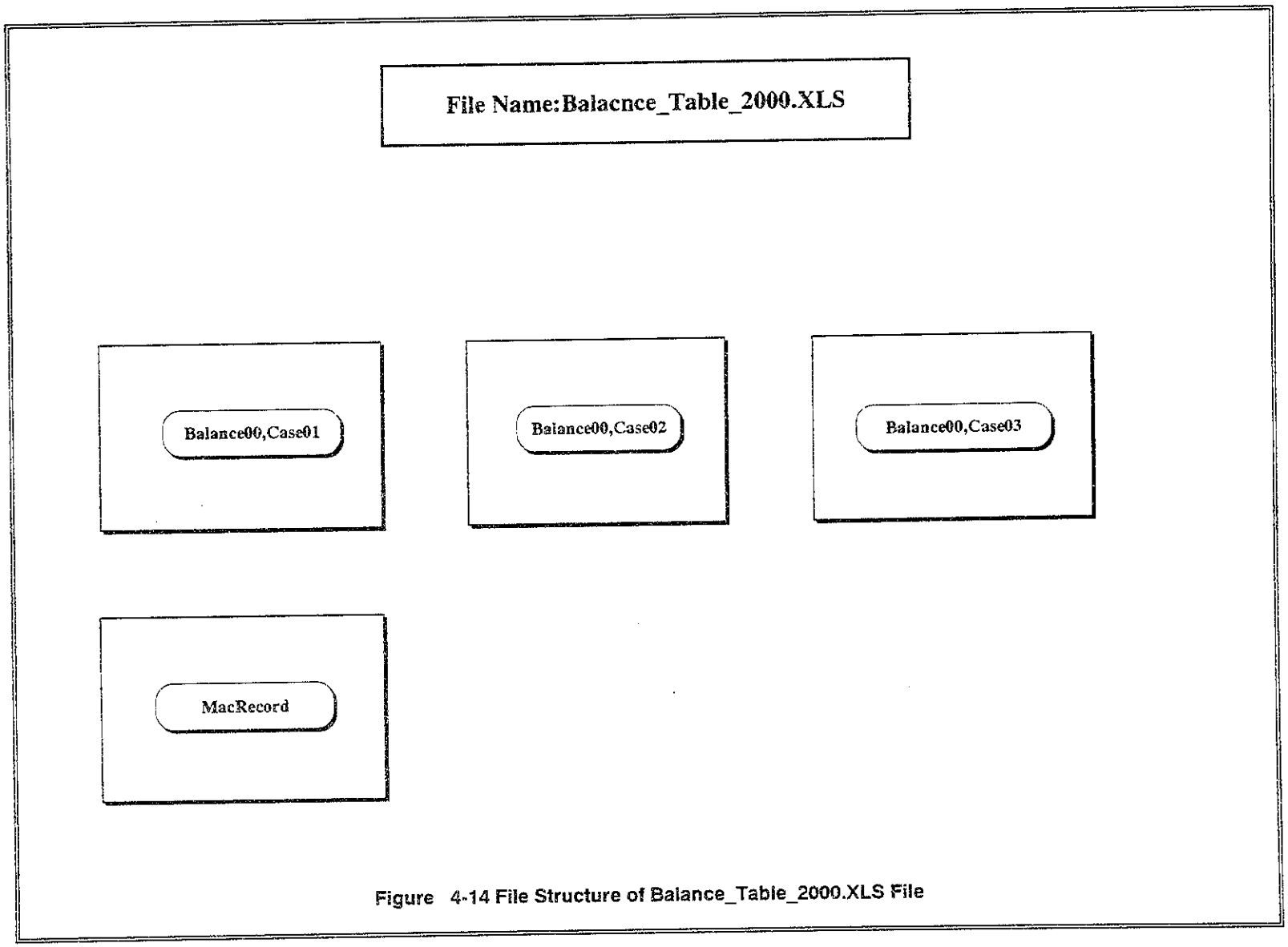


Figure 4-14 File Structure of Balance_Table_2000.XLS File

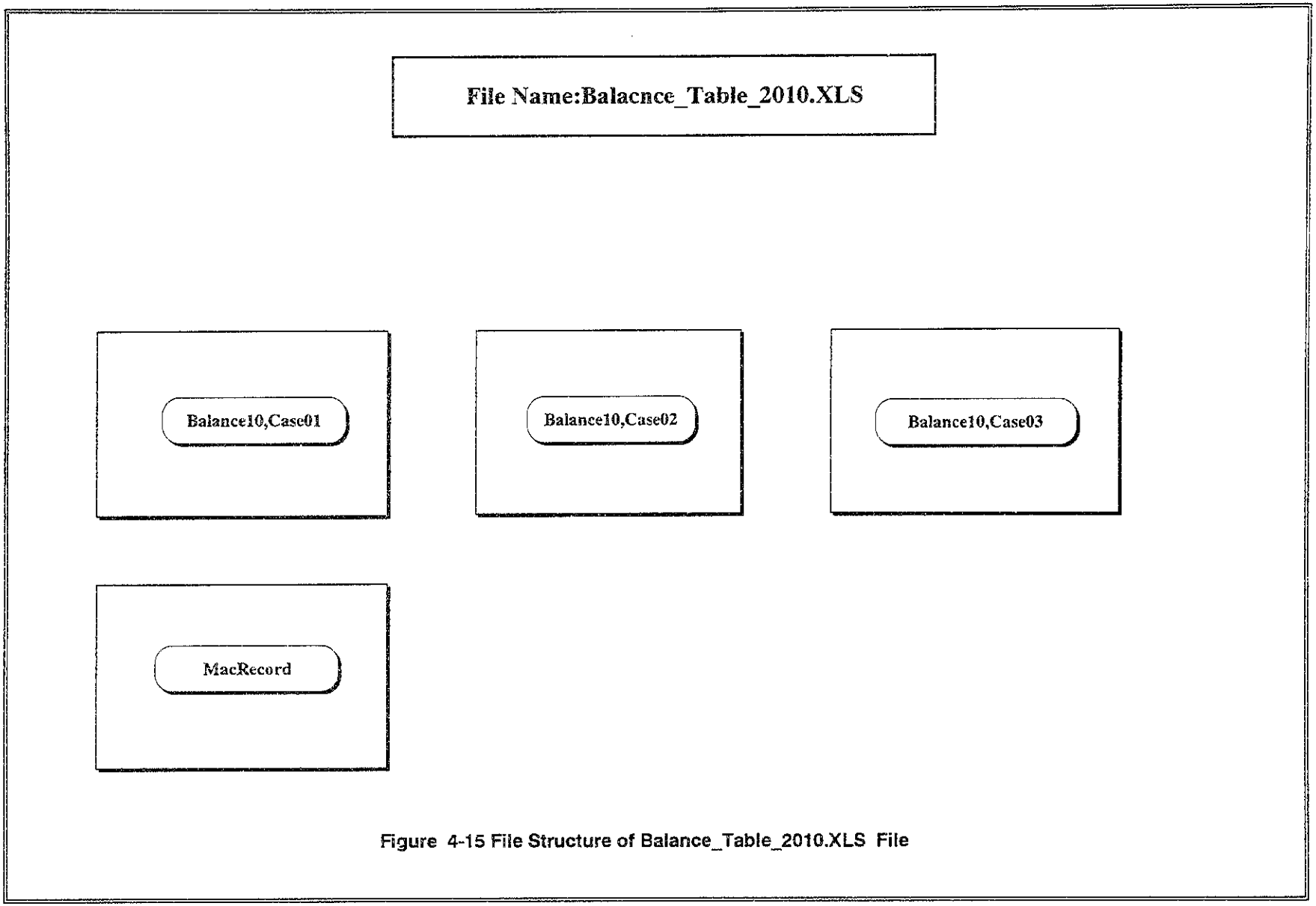


Figure 4-15 File Structure of Balance_Table_2010.XLS File

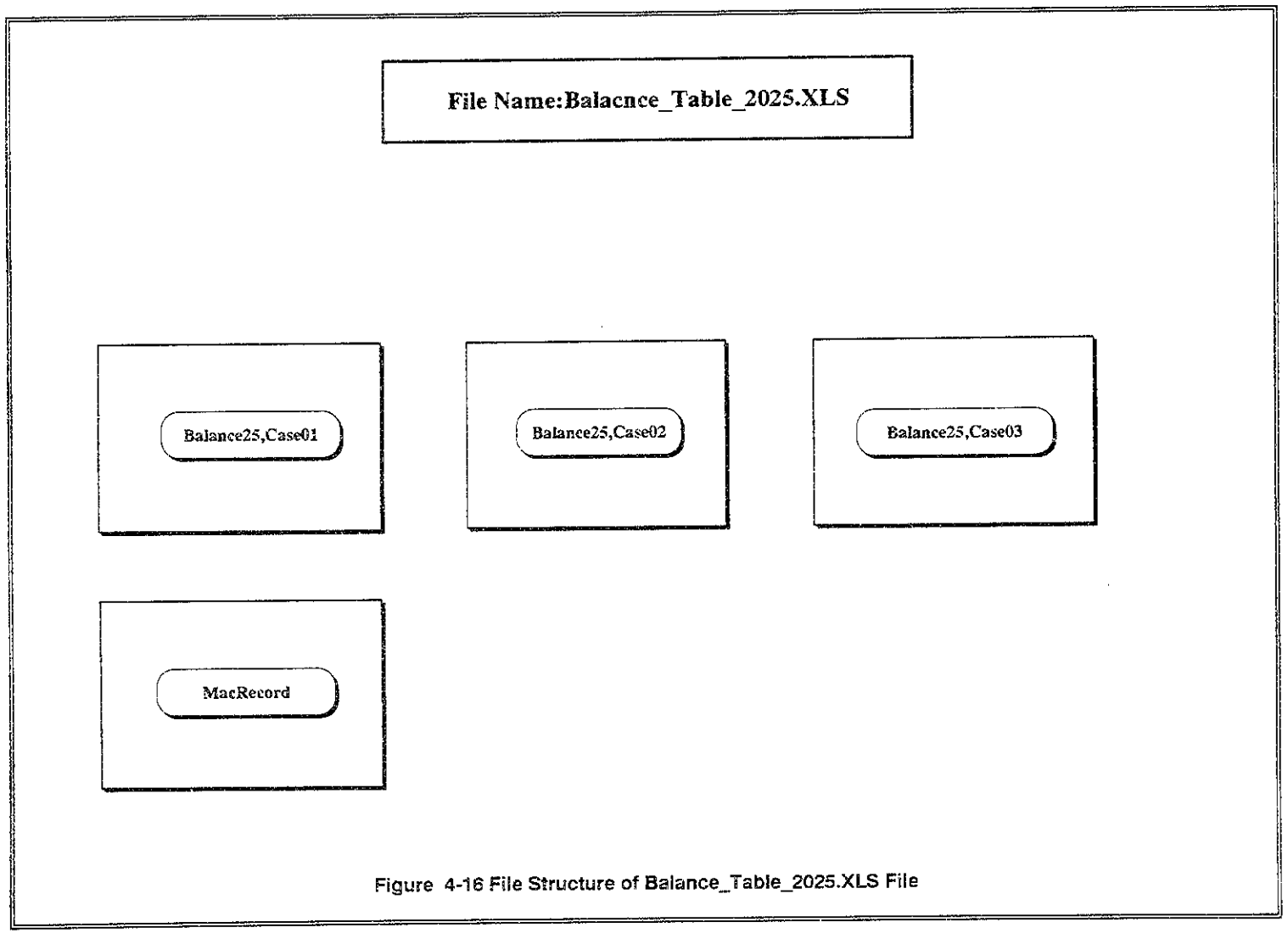


Figure 4-16 File Structure of Balance_Table_2025.XLS File

Figure 4-17 Structure of Database File