

LEARN ELECTRIC COST

**A Software for Costing, Project Control &
MDS For Electrical Projects**

By :

Y.A. Agboatwala &

Fatima.Y. Agboatwala

1802, Jamuna Amrut,

219, Patel Estate, S.V.Road,

Jogeshwari(W), Mumbai - 400102

Phone: 09820792254 , (022) 26783525

Url: www.supercivilcd.com,

www.agboatwala.com


Email : yaa@supercivilcd.com,

yaa@agboatwala.com,

supercivilcd@gmail.com

LEARN ELECTRIC COST

Create New File	 <u>STEP NO. 1</u>
Add / Edit Item Rates	 <u>STEP NO. 2</u>
Add / Edit Quantities	 <u>STEP NO. 3</u>
Sectionwise Quantities/Costs	 <u>STEP NO. 4</u>
Total Cost	 <u>STEP NO. 5</u>
Sectional Labour Consumption	 <u>STEP NO. 6</u>
Total Labour Consumption	 <u>STEP NO. 7</u>
Display Pie / Bar Charts	 <u>STEP NO. 8</u>
Master Data Sheet <MDS>	 <u>STEP NO. 9</u>
Typical Forms/Formats	 <u>STEP NO. 10</u>
Copy, Delete, Edit & Export to Excel	 <u>STEP NO. 11</u>
Monthly Cash Flow, Material, men, Consumption & S Curve	 <u>STEP NO. 12</u>

 The other menu options i.e. Load Calculation & Misc. are self explanatory.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 1

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet Load_Calc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), MIE, DBM, FIV

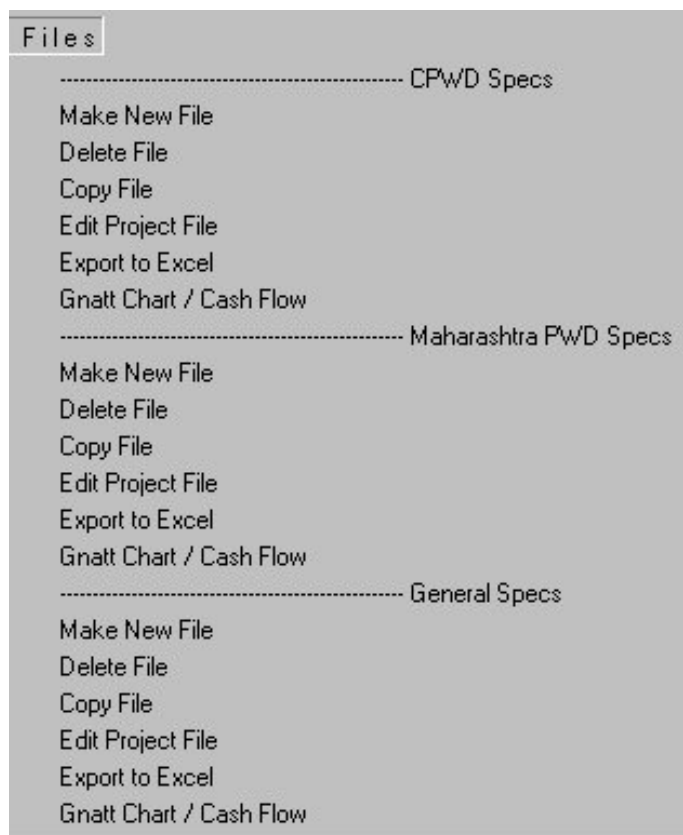
▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

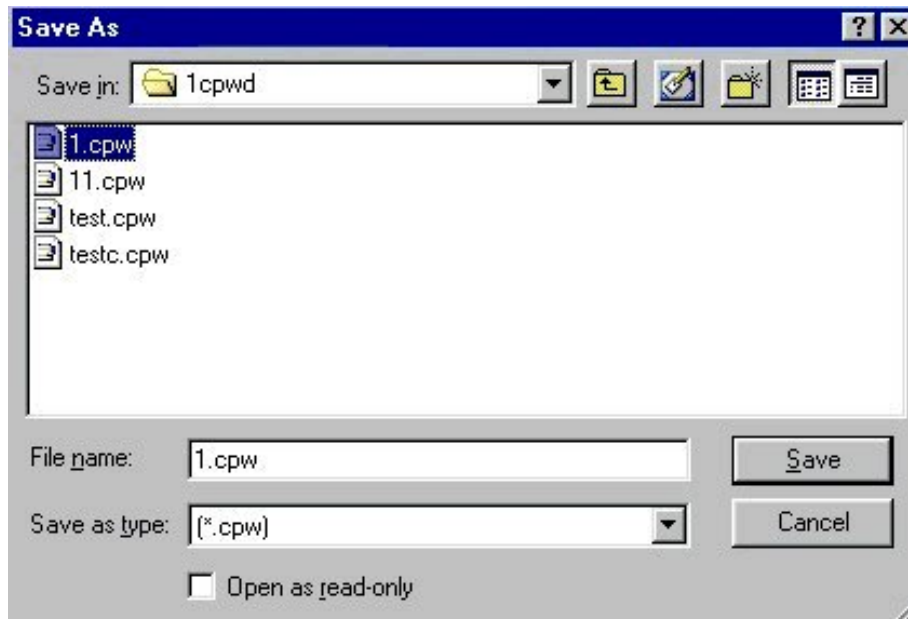
Click the FILES option in the MENU bar. The following window will open.

Note that all the options under the FILES i.e. CPWD Specs, Maharashtra PWD Specs and General Specifications are similar in operation.

▶ *We will consider CPWD option only for demonstration purpose.*



- ▶ Now click "Make New File" option. The following window will open. You must create a separate Folder / Directory to store your files. I have created a Directory called " 1CPWD " in C drive to store my cpwd files. Now go to this folder & give a file name to your project. I have given " 1 " as the name of my new project file. Click the save button.



- ▶ When you click the save button, following project window will open.

Project File : Add Project Details CPWD

File Name : C:\1cpwd\1.cpw Date : 12/2/07

Organization :

Project :

Project No :

Client ID :

Building / Structure ID :

Project Duration in Months :	<input type="text" value="24"/>	Project Over Head in %	<input type="text" value="10"/>
Taxes in %	<input type="text" value="4"/>	Profit Margin in %	<input type="text" value="10"/>
Skill labour Wage / day	<input type="text" value="250"/>	Un Skilled Labour Wage	<input type="text" value="180"/>
Foreman Cost / day	<input type="text" value="350"/>	Mobilization Advance in %	<input type="text" value="10"/>
Recovery of Advance in %	<input type="text" value="10"/>	Security Deposit in %	<input type="text" value="10"/>

- ▶ The window requires various project details. Whatever values you will fill here will serve as default values for the project.
I have filled up the above values as required by my new project " 1 ".
You can change these values now OR later by clicking "Edit Project File" option in File Menu.
Now click the OK button, following window will appear.



- ▶ Click OK button. Now project File creation is complete.
The above window gives the following two vital information.
 1. Use " Edit Item Rates " Menu to add / Edit Rates of various Items &
 2. Use " Add Edit Quantities " Menu to add / Edit Quantities of various Items.

STEP NO. 1 IS OVER.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 2

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet Load_Calc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), MIE, DBM, FIV

▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

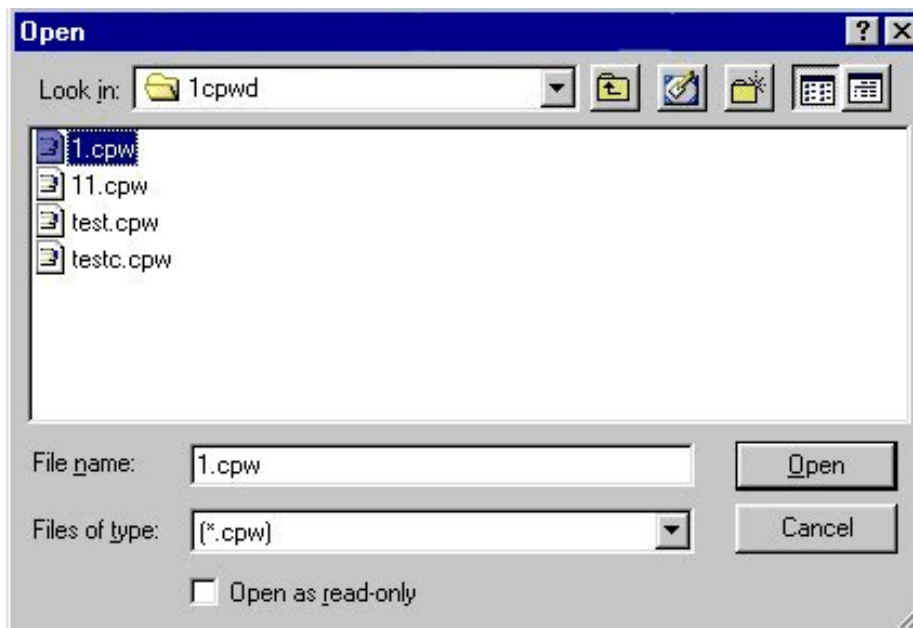
- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

Click the " Edit Item Rates " option in the MENU bar.

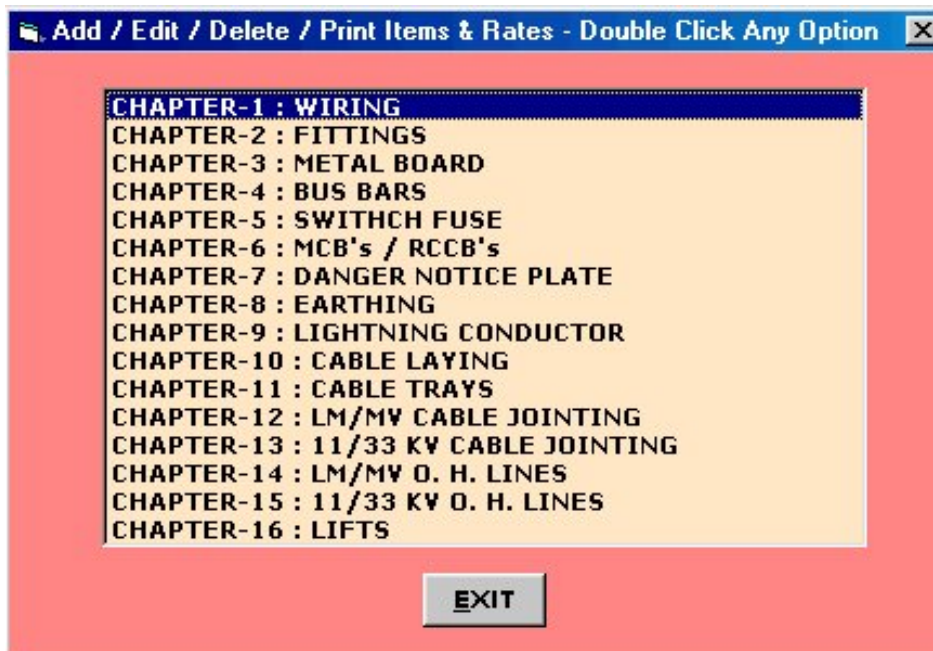
▶ *We will consider CPWD option only for demonstration purpose.*

CPWD
PWD Maharashtra
General

▶ Now click CPWD option. A " open file window " will be displayed as follows. Select File " 1 " & click open.



- ▶ A new menu will open displaying all the Chapters. Now double click " Chapter - 1 : Wiring ".



- ▶ A new window will appear as follows. This is main window which can perform the following functions.

- Display all items.
- Print all items.
- Add your own items.
- Delete any existing item.
- Add Material, Labour, Subcontractor & Equipment Rates.
- One more field called " Item_ID " is given, in case you want to identify items apart from the existing Item No.

You can select any item by taking the Blue cursor to that item row or just clicking with the mouse on any item row.

DISPLAY/EDIT/ADDITION OF ITEMS AND RATES

Project No : 8912

CHAPTER-1 : WIRING

Date : 12/2/07

Item_ID	Item No.	Item	Unit	Material R...	Labour Rate	Subcontra...	Equipment
	101ALS...	Wiring for light point/fanpoint/exhaust f...	Point	350	110		
	102 ALS...	As 102 ALS1LGRA but Group B.	Point				
	102 ALS...	As 102 ALS1LGRA but Group C.	Point				
	104 ALS...	Wiring for twin control light point with ...	Point				
	105 ALS...	Wiring for 3 pin 5/6 amps plug point wi...	Point				
	106 ALS...	Wiring for light plug with 2x1.5 sq mm ...	Point				
	107 ALS...	Wiring for light/power plug with 2x4 sq...	M				
	108 ALS...	Wiring for light/power plug with 4x4 sq...	M				
	109 ALS...	Wiring for circuit wiring with 2x1.5 sq ...	M				
	110 ALS...	Wiring for submain wiring with PVC in...	M				
	111 ALS...	Wiring for submain wiring with PVC in...	M				
	112 ALS...	Wiring for submain wiring with PVC in...	M				
	113 ALS...	Wiring for submain wiring with PVC in...	M				
	114 ALS...	Wiring for submain wiring with PVC in...	M				
	115 ALS...	Wiring for submain wiring with PVC in...	M				
	116 ALS...	Wiring for submain wiring with PVC in...	M				
	117 ALS...	Wiring for submain wiring with PVC in...	M				
	118 ALS...	Wiring for submain wiring with PVC in...	M				
	119 ALS...	Wiring for submain wiring with PVC in...	M				
	120 ALS...	Wiring for submain wiring with PVC in...	M				
	121 ALS...	Wiring for submain wiring with PVC in...	M				

Edit Item No. 101ALSTLGRA

Item : Wiring for light point/fanpoint/exhaust fan point/call bell point with 1.5 sq mm PVC insulated aluminium conductor cable in surface/recessed steel conduit as required. Group A.

Item ID : Unit : Basic Material Rate : Basic Labour Rate :

Item No : Subcontractor Rate : Equipment Rate:

Item Rate : 570.399

- ▶ We will select the 1st item.
- Enter Labour Rate = 110
- Material Rate = 350.0
- Subcontractor Rate = Leave it as it is or fill this rate.
- Equipment Rate = Leave it as it is or fill this rate.

Now Click UPDATE button.
You will see that Item Rate (With Pink background) will change to 570.399

- ▶ Similarly you can give Rates of more items, which are likely to be used in the project. Always click UPDATE button to see the final rate. This final Item Rate is arrived at after adding default Overheads, Taxes & Profit margin, which you have already indicated while creating File.
- Now Click the EXIT button to leave this window.
- You are back to Chapter Menu. Here you can select other sections by double clicking any section & add the item rates of various items which you think will be required for your project.

STEP NO. 2 IS OVER.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 3

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet Load_Calc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), MIE, DBM, FIV

▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

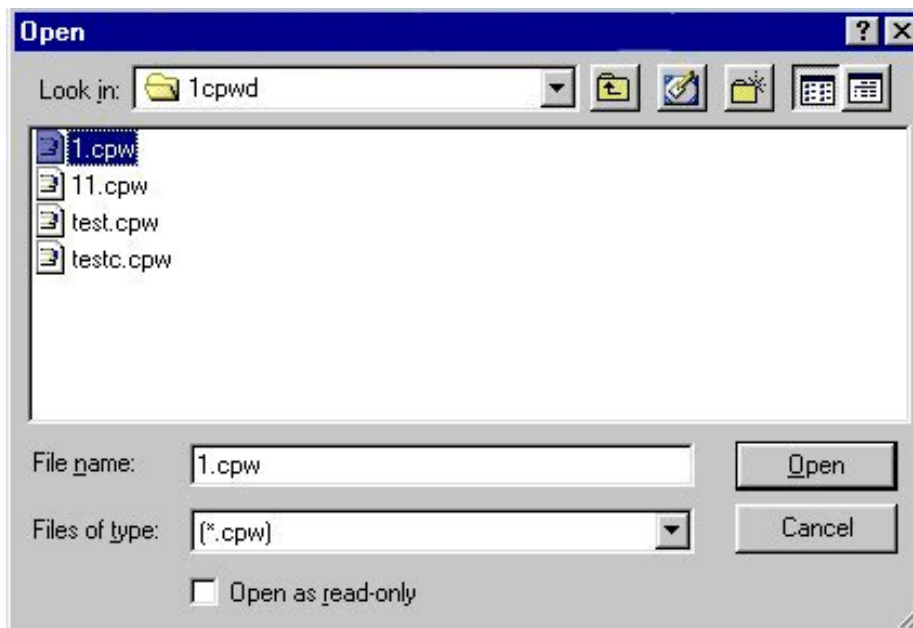
- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

Click the " Add, Edit Quantities " option in the MENU bar.

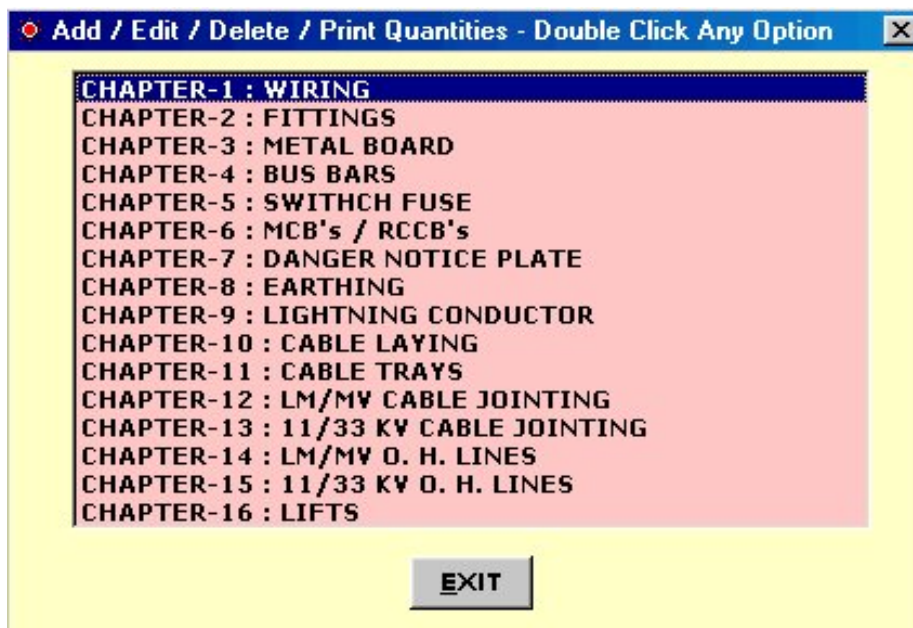
▶ *We will consider CPWD option only for demonstration purpose.*

CPWD
PWD Maharashtra
General

▶ Now click CPWD option. A " open file window " will be displayed as follows. Select File " 1 " & click open.



▶ A new menu will open displaying all the Chapters. Now double click " Chapter - 1 : Wiring ".



▶ A new window will appear as follows. This is main window which can perform the following functions.

- Display all items.
- Print all items.
- Add your own items.
- Delete any existing item.
- Add Item Quantities.
- One more field called " Item_ID " is given, in case you want to identify items apart from the existing Item No.

You can select any item by taking the Blue cursor to that item row or just clicking with the mouse on any item row.

Note that " Item Rate ", which we had given in previous " Edit Item Rates " option has already appeared here automatically.

DISPLAY/ADD/EDIT/PRINTING OF QUANTITIES

Project No : 8912

CHAPTER-1 : WIRING

Date : 12/2/07

Item_ID	Item No.	Item	Unit	Item_Rate	Quantity	Cost
	101ALS...	Wiring for light point/fanpoint/exhaust fan point/call bell p...	Point	570.4	100	57040
	102 ALS...	As 102 ALS1LGRA but Group B.	Point			
	102 ALS...	As 102 ALS1LGRA but Group C.	Point			
	104 ALS...	Wiring for twin control light point with 1.5 sq mm PVC in...	Point			
	105 ALS...	Wiring for 3 pin 5/6 amps plug point with 1.5 sq mm PVC i...	Point			
	106 ALS...	Wiring for light plug with 2x1.5 sq mm PVC insulated alu...	Point			
	107 ALS...	Wiring for light/power plug with 2x4 sq mm PVC insulate...	M			
	108 ALS...	Wiring for light/power plug with 4x4 sq mm PVC insulate...	M			
	109 ALS...	Wiring for circuit wiring with 2x1.5 sq mm PVC insulated ...	M			
	110 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	111 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	112 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	113 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	114 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	115 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	116 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	117 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	118 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	119 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	120 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	121 ALS...	Wiring for submain wiring with PVC insulated aluminium...	M			
	122 ALS...	ReWiring for light point/fan point/exhaust fan point/call b...	Point			
	123 ALS...	ReWiring for light point/fan point/exhaust fan point/call b...	Point			

Edit Item No. 101ALSTLGRA << Click UPDATE Button after Editing. >>

Item : Wiring for light point/fanpoint/exhaust fan point/call bell point with 1.5 sq mm PVC insulated aluminium conductor cable in surface/recessed steel conduit as required. Group A.

Item ID : Item No : Unit : Quantity :

- ▶ We will select the 1st item.
Enter Quantity = 100

Now Click UPDATE button.
You will see that " Cost " column will indicate 57040 for 1st item.

- ▶ Similarly you can fill in more item quantities, which are likely to be used in this project. Always click UPDATE button to see the final item cost.
Now Click the EXIT button to leave this window.
You are back to Chapter Menu. Here you can select other sections by double clicking any section & add the item quantities of various items which you think will be required for your project.

STEP NO. 3 IS OVER.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 4

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet LoadCalc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), AME, DBM, FIV

▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

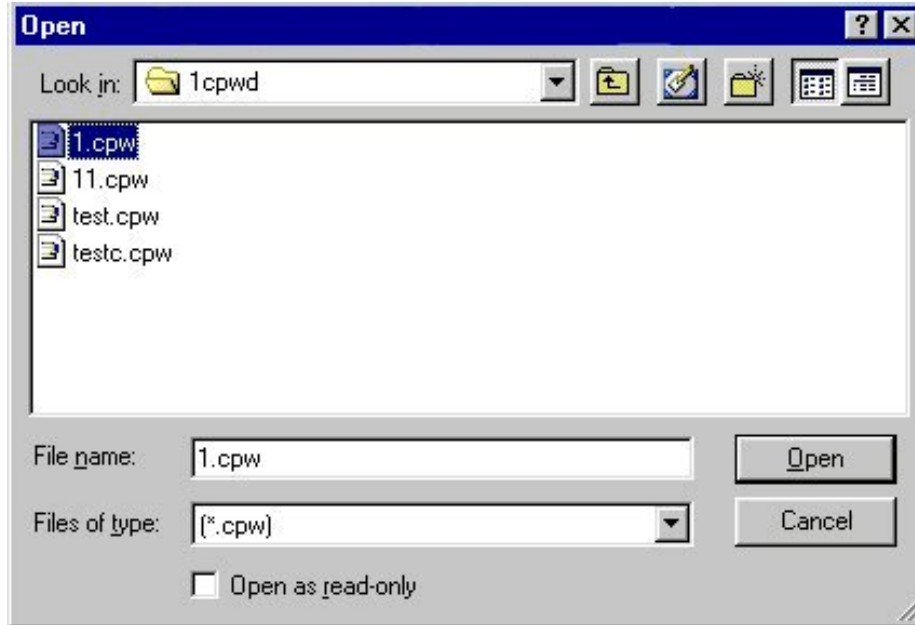
- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

Click the " Summary " option in the MENU bar. Following sub menu is displayed.

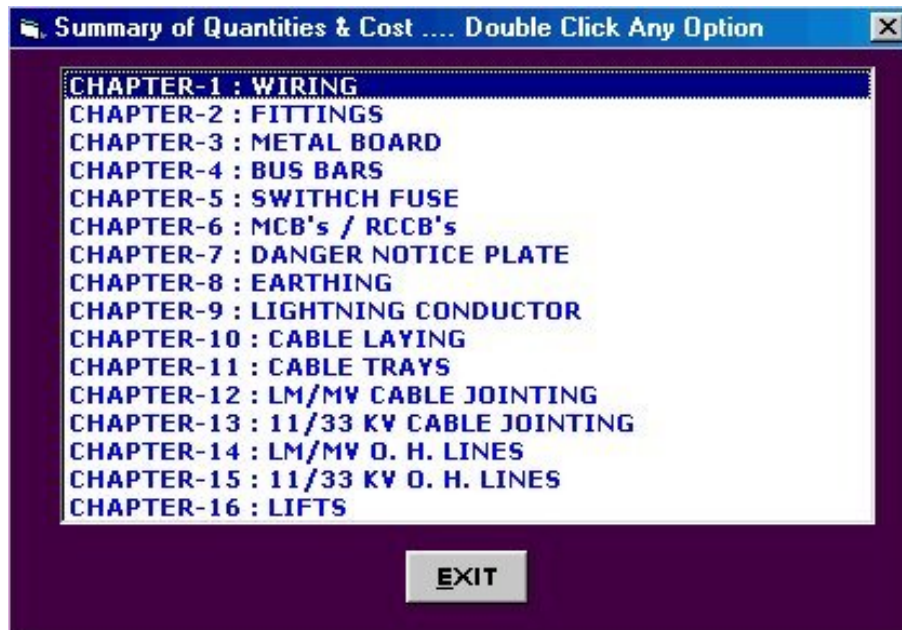
▶ *We will consider CPWD option only for demonstration purpose.*

Summary
----- CPWD
Sectionwise Quantities/Costs - CPWD
Total Cost - CPWD
Sectionwise Labour - CPWD
Total Labour Consumption - CPWD
----- Maha PWD
Sectionwise Quantities/Costs - Maha PWD
Total Cost - Maha PWD
Sectionwise Labour - Maha PWD
Total Labour Consumption - Maha PWD
----- General
Sectionwise Quantities/Costs - General
Total Cost - General
Sectionwise Labour - General
Total Labour Consumption - General

- ▶ Now click Sectionwise Quantities/Costs - CPWD.
A " open file window " will be displayed as follows.
Select File " 1 " & click open.



- ▶ A new menu will open as follows displaying all the Chapters.
Now double click " Chapter - 1 : Wiring ".



- ▶ Following window is displayed.

This window displays the following parameters.

- Sectional Item Quantity, Rate and Cost.
- Sectional Item Overhead, Profit and Taxes.
- Total Sectional Overhead, Profit, Taxes and Cost.
- By Clicking " PRINT " button, all the records will be printed.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 5

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet LoadCalc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), AME, DBM, FIV

▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

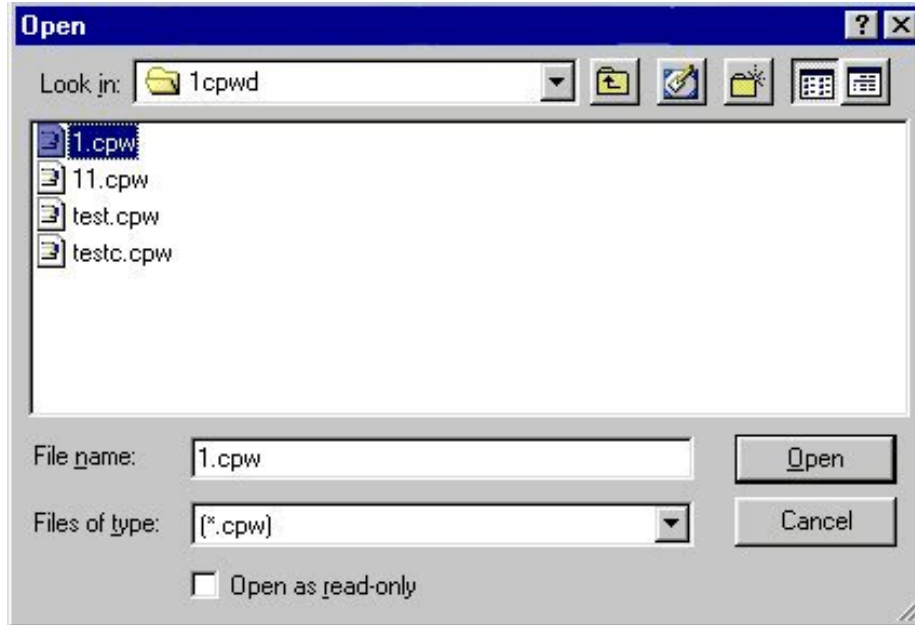
- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

Click the " Summary " option in the MENU bar. Following sub menu is displayed.

▶ *We will consider CPWD option only for demonstration purpose.*

```
Summary
----- CPWD
Sectionwise Quantities/Costs - CPWD
Total Cost - CPWD
Sectionwise Labour - CPWD
Total Labour Consumption - CPWD
----- Maha PWD
Sectionwise Quantities/Costs - Maha PWD
Total Cost - Maha PWD
Sectionwise Labour - Maha PWD
Total Labour Consumption - Maha PWD
----- General
Sectionwise Quantities/Costs - General
Total Cost - General
Sectionwise Labour - General
Total Labour Consumption - General
```


- ▶ **Now click Total Cost - CPWD.**
A " open file window " will be displayed as follows.
Select File " 1 " & click open.



- ▶ **Following window is displayed.**

This window displays the following parameters.

- **Sectional Item Overhead, Profit, Taxes and Costs.**
- **Total Project Overhead, Profit, Taxes and Cost.**
- **By Clicking " PRINT " button, all the records will be printed.**

SUMMARY OF PROJECT COST

Organization : Super Civil CD
 Project : Transformer Project
 Structure ID : 22 KV Sub Station at NH4

Client : CPWD
 Project No : 8912
 Date : 13/2/07

Total Project Cost :
 Total Taxes :

Total Overhead :
 Total Profit :

SECTION	COST	OVERHEAD	TAX	PROFIT	% TOTAL
CHAPTER-1 : WIRING	57040	4600	1840	4600	6.63
CHAPTER-2 : FITTINGS	58280	4700	1880	4700	6.78
CHAPTER-3 : METAL BOARD	62000	5000	2000	5000	7.21
CHAPTER-4 : BUS BARS	62000	5000	2000	5000	7.21
CHAPTER-5 : SWITCH FUSE	49600	4000	1600	4000	5.77
CHAPTER-6 : MCB's / RCCB's	49600	4000	1600	4000	5.77
CHAPTER-7 : DANGER NOTICE PLATE	37200	3000	1200	3000	4.32
CHAPTER-8 : EARTHING	49600	4000	1600	4000	5.77
CHAPTER-9 : LIGHTNING CONDUCTOR	49600	4000	1600	4000	5.77
CHAPTER-10 : CABLE LAYING	49600	4000	1600	4000	5.77
CHAPTER-11 : CABLE TRAYS	49600	4000	1600	4000	5.77
CHAPTER-12 : LM/MV CABLE JOINTING	49600	4000	1600	4000	5.77
CHAPTER-13 : 11/33 KV CABLE JOINTI...	49600	4000	1600	4000	5.77
CHAPTER-14 : LM/MV D. H. LINES	49600	4000	1600	4000	5.77
CHAPTER-15 : 11/33 KV D. H. LINES	49600	4000	1600	4000	5.77
CHAPTER-16 : LIFTS	86800	7000	2800	7000	10.1

EXIT

PRINT

▶ Now Click the EXIT button to leave this option.

STEP NO. 5 IS OVER.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 6

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet LoadCalc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), AME, DBM, FIV

▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

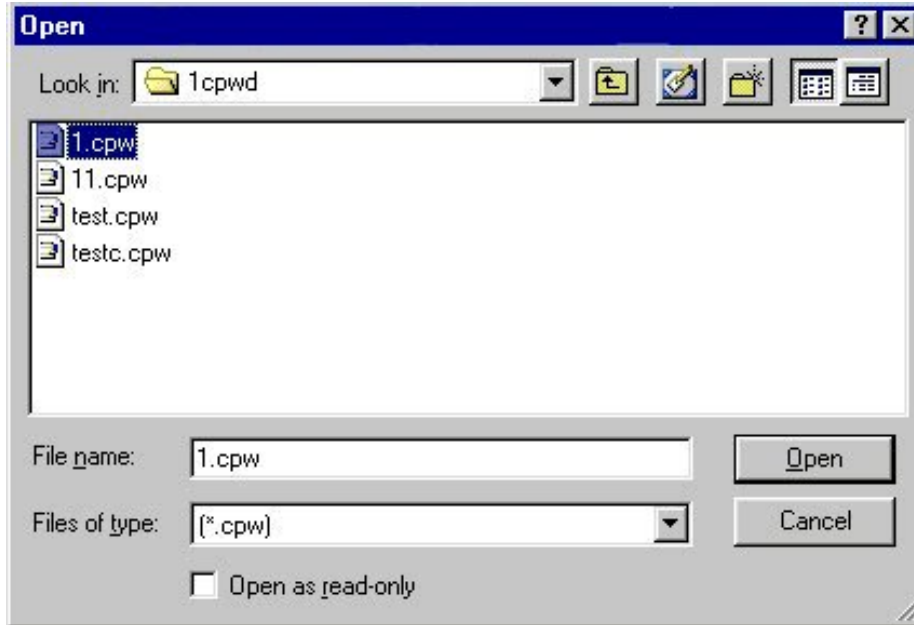
- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

Click the " Summary " option in the MENU bar. Following sub menu is displayed.

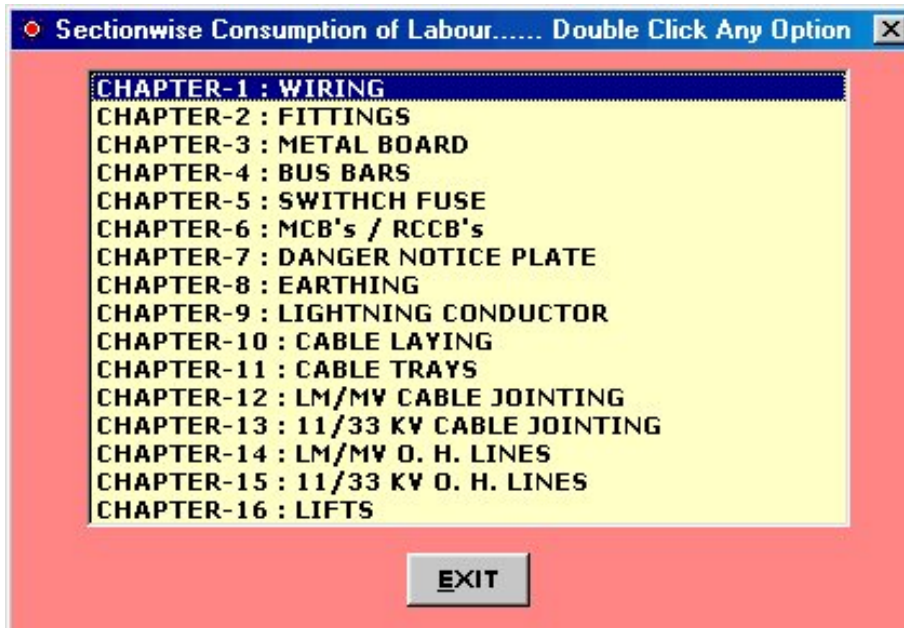
▶ *We will consider CPWD option only for demonstration purpose.*

Summary
----- CPWD
Sectionwise Quantities/Costs - CPWD
Total Cost - CPWD
Sectionwise Labour - CPWD
Total Labour Consumption - CPWD
----- Maha PWD
Sectionwise Quantities/Costs - Maha PWD
Total Cost - Maha PWD
Sectionwise Labour - Maha PWD
Total Labour Consumption - Maha PWD
----- General
Sectionwise Quantities/Costs - General
Total Cost - General
Sectionwise Labour - General
Total Labour Consumption - General

- ▶ Now click Sectionwise Labour - CPWD.
A " open file window " will be displayed as follows.
Select File " 1 " & click open.



- ▶ A new menu will open as follows displaying all the Chapters.
Now double click " Chapter - 1 : Wiring ".



- ▶ Following window is displayed.

This window displays the following parameters.

- Sectional Itemwise Skilled Labour, Un Skilled Labour & Foreman Quantities in Nos.
- Total Sectional Skilled Labour, Un Skilled Labour & Foreman Quantities in Nos.
- By Clicking " PRINT " button, all the records will be printed.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 7

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet LoadCalc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), AME, DBM, FIV

▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

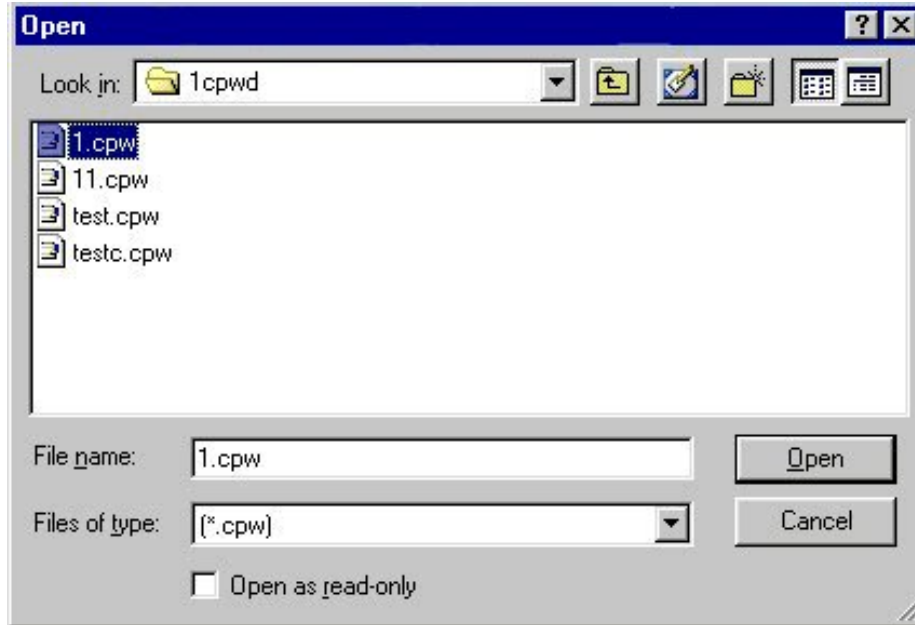
- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

Click the " Summary " option in the MENU bar. Following sub menu is displayed.

▶ *We will consider CPWD option only for demonstration purpose.*

```
Summary
----- CPWD
Sectionwise Quantities/Costs - CPWD
Total Cost - CPWD
Sectionwise Labour - CPWD
Total Labour Consumption - CPWD
----- Maha PWD
Sectionwise Quantities/Costs - Maha PWD
Total Cost - Maha PWD
Sectionwise Labour - Maha PWD
Total Labour Consumption - Maha PWD
----- General
Sectionwise Quantities/Costs - General
Total Cost - General
Sectionwise Labour - General
Total Labour Consumption - General
```

- ▶ Now click Total Labour Consumption - CPWD.
A " open file window " will be displayed as follows.
Select File " 1 " & click open.



- ▶ Following window is displayed.

This window displays the following parameters.

- Total Skilled, Un Skilled Labour & Foreman in Nos.
- Total Skilled, Un Skilled Labour & Foreman Cost.
- By Clicking " PRINT " button, all the records will be printed.

LABOUR CONSUMPTION

Organization :	Super Civil CD	Date :	13/2/07
Project :	Transformer Project	Structure ID :	22 KV Sub Station at NH4
Client :	CPWD	Project No :	8912

Skill Labour - Nos	224.98
Un Skill Labour - Nos	449.97
Foreman - Nos	44.99
Total Manpower	719.94

Skill Labour Cost	56245
Un Skill Labour Cost	80994.6
Foreman Cost	15746.5
Total Labour Cost	152986.1

PRINT

EXIT

- ▶ Now Click the EXIT button to leave this option.

STEP NO. 7 IS OVER.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 8

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet Load_Calc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), MIE, DBM, FIV

▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

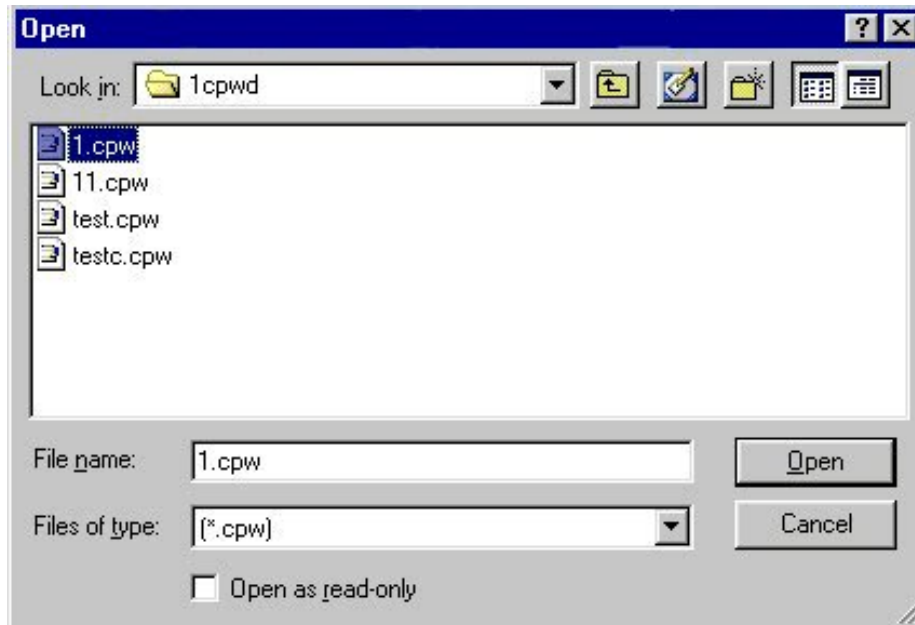
- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

Click the " Graphics " option in the MENU bar. Following sub menu is displayed.

▶ *We will consider CPWD option only for demonstration purpose.*

CPWD
PWD Maharashtra
General

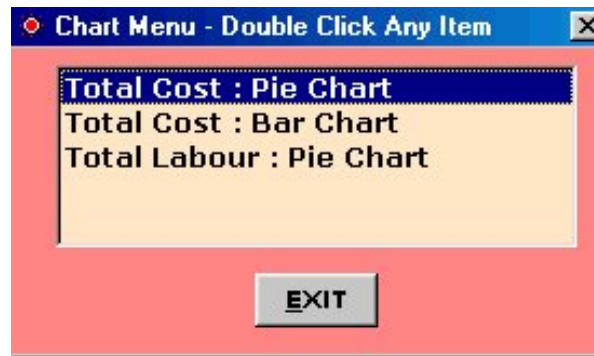
▶ Now click CPWD.
A " open file window " will be displayed as follows.
Select File " 1 " & click open.



▶ Following Chart Menu window is displayed.

This window displays the following parameters.

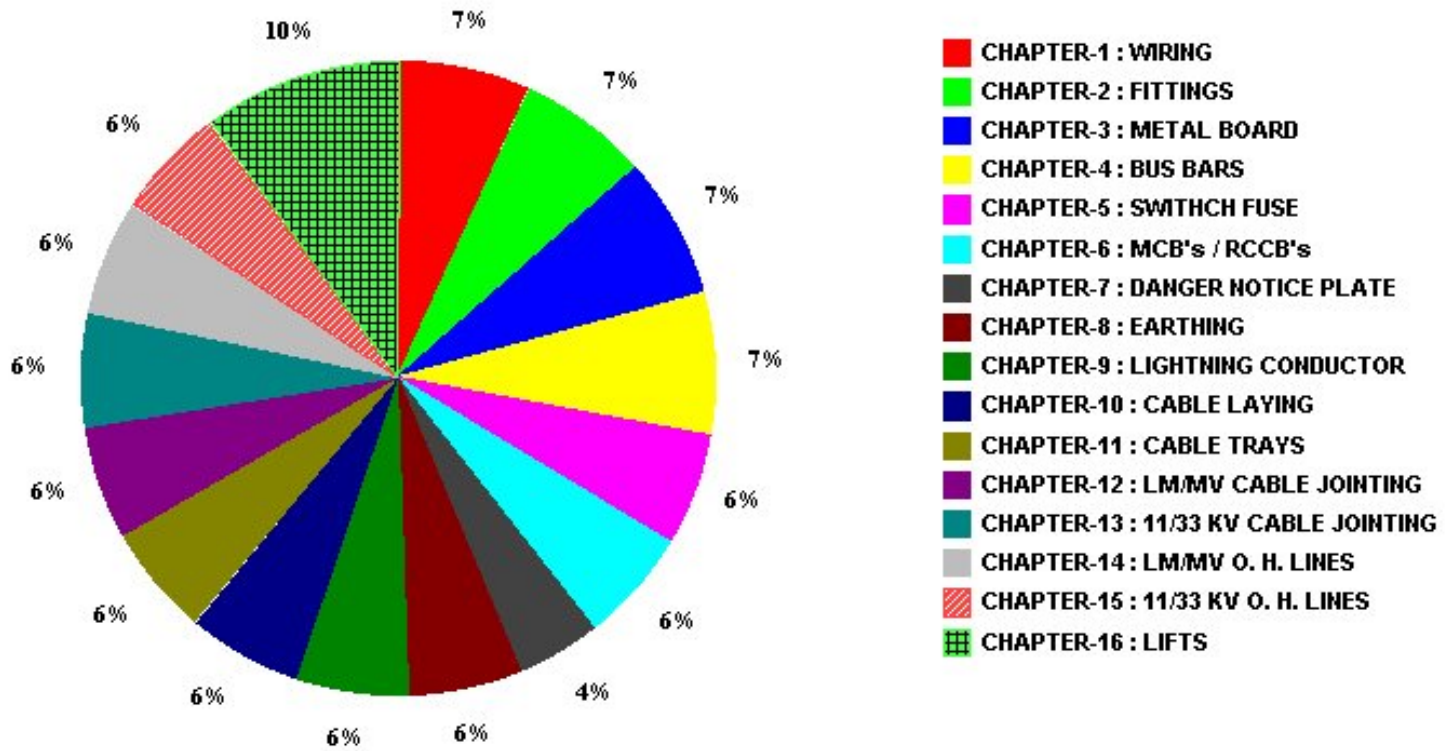
- Total Cost : Pie Chart
- Total Cost : bar Chart
- Total Labour : Pie Chart



▶ Now Click the Total Cost : Pie Chart option.

Following window opens up, displaying Sectional Costs (Chapter Wise) as % of total Cost.

SECTIONAL COSTS - PIE CHART



▶ Similarly a user can display other Charts.
Now Click the EXIT button to leave this option.

STEP NO. 8 IS OVER.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 9

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet Load_Calc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), MIE, DBM, FIV

▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

Click the " Master Data Sheet " option in the MENU bar. Following menu is displayed.

MASTER DATA SHEET

A Database Management Program for Electrical Engineers By : Yusuf A Agboatwala
B.E. (CIVIL), MIE (IND), DBM (IMC), DCM (COMPUTER), FIV
1802, Jamuna Amrut, 219, Patel Estate, S. V. Road, Jogeshwari (W), Mumbai - 400102.
Phone : 022 - 26783525. Cell : 9820792254, 9892306516

▶ Master Data Sheet (MDS) is a Database Management Program for Electrical Engineers. MDS is a separate standalone software within " Electrical Cost " software. Click " Read Me " option from the Menu bar. Following two items are displayed.

- Basis of MDS.
- Learn MDS

Note: Before learning MDS, the user should go through Basis of MDS. Now click Learn MDS. Following window is displayed.

LEARN MASTER DATA SHEET

Note : Before Learning, you must go through " Basis of MDS " from " Read Me " Option.

Create New File



STEP NO. 1

Add Records



STEP NO. 2

Display, Print and Delete Records



STEP NO. 3

Edit Records



STEP NO. 4

Copy, Delete and Edit Project File



STEP NO. 5

- ▶ For learning MDS Go through the Steps 1 to 5.
- ▶ Now Click the EXIT button to leave this option.

STEP NO. 9 IS OVER.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 10

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet Load_Calc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), MIE, DBM, FIV

▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

If you click the Forms_1 option then following graphics will appear.

Measurement Sheet
R A Bill - CPWD Item Rate
R A Bill - CPWD Lump Sum
Advance Payment - CPWD
R A Bill - General
Projected Delay Report
Projected Profit
Projected Material Consumption
Projected Labour Consumption
Actual Delay Report
Actual Profit / Loss
Actual Material Consumption
Actual Labour Consumption
Profit Control
Material Control
Labour Control
Daily Progress Report
Material Inward Report
Material Transfer Receipt
Material Issue Slip
Daily Store Consumption
Daily Departmental Labour Slip
Watchman Report - Material
Watchman Report - Visitors
Inspection Report
Indent Slip
Pending Requisitions
Material Consumption Statement

▶ If you click the Forms_2 option then following graphics will appear.

Electricity Consumption Statement
Water Consumption Statement
Machinery Status Report
Machinery Maintenance Report
Excess Material List
Progress Report
Material Planning Schedule
Activity Schedule
Crash Cost Schedule
Calendar Date / Working Day
Material Order/Receipt Schedule
Labour Payment Schedule

▶ The Forms_1 & Forms_2 options display various typical forms, formats or templates generally used in Electrical Construction industry. A typical quantity measurement sheet is displayed as under.

MEASUREMENT / QUANTITY SHEET

SECTION XXX - : ZZZZZZZZZZ

SN	Item No	Item - Description	Unit	Nos				QTY
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								

- ▶ All the above Forms / Formats / Templates are in M. S. WORD format.
In case of any difficulty in opening the above documents, user can directly access the above files from C: \ Program files \ ELECTRIC COST \ Forms directory.

STEP NO. 10 IS OVER.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 11

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet Load_Calc. Misc

ELECTRIC COST

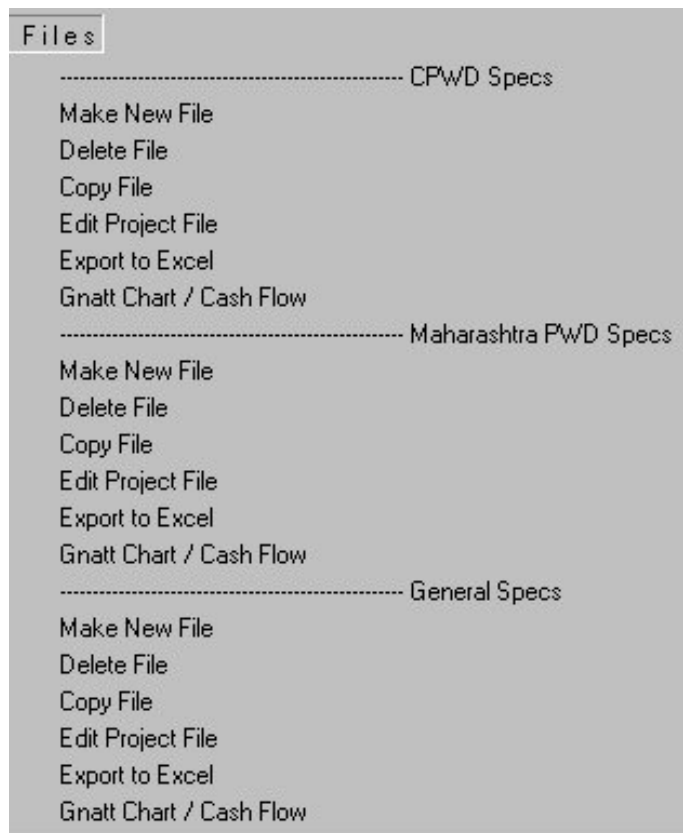
Y. A. AGBOATWALA
B. E. (Civil), MIE, DBM, FIV

▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

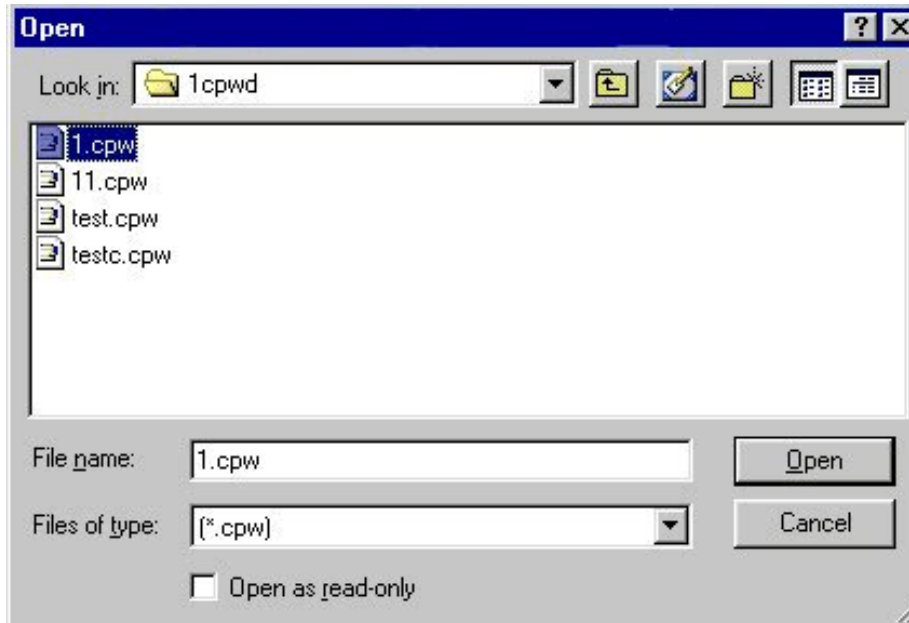
- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

▶ *We will consider CPWD option only for demonstration purpose.*

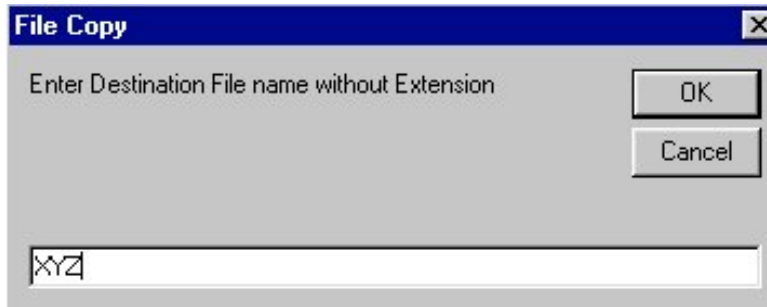
Click the FILE option in the MENU bar. The following window will open.



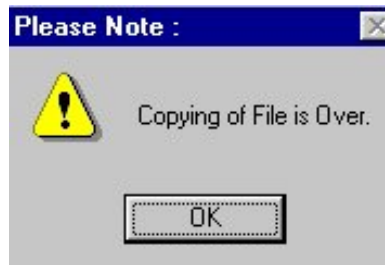
- ▶ Now click Copy File option. A new window will appear as follows, asking for the name of the File to be copied.



- ▶ Now click " 1 " file & click open. A new window will appear as follows, asking for the name of the destination file.

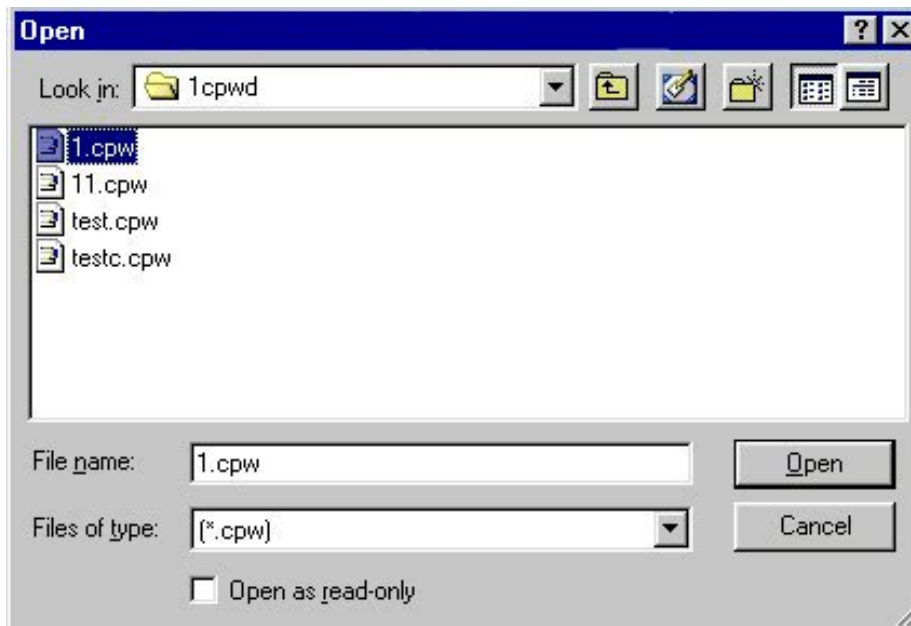


- ▶ Give the destination file name as " XYZ ". Press " OK " button. A new message window will appear as follows.

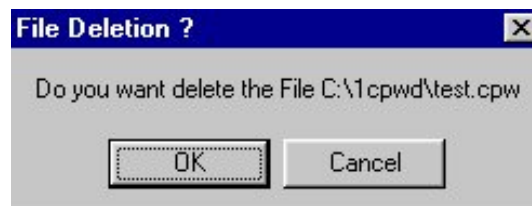


- ▶ The above message confirms the copying of all respective files to new XYZ file. Note that original file " 1 " is intact. Press " OK " button to exit.

- ▶ Again Now click Delete File option. A new window will appear as follows, asking for the name of the File to be deleted.



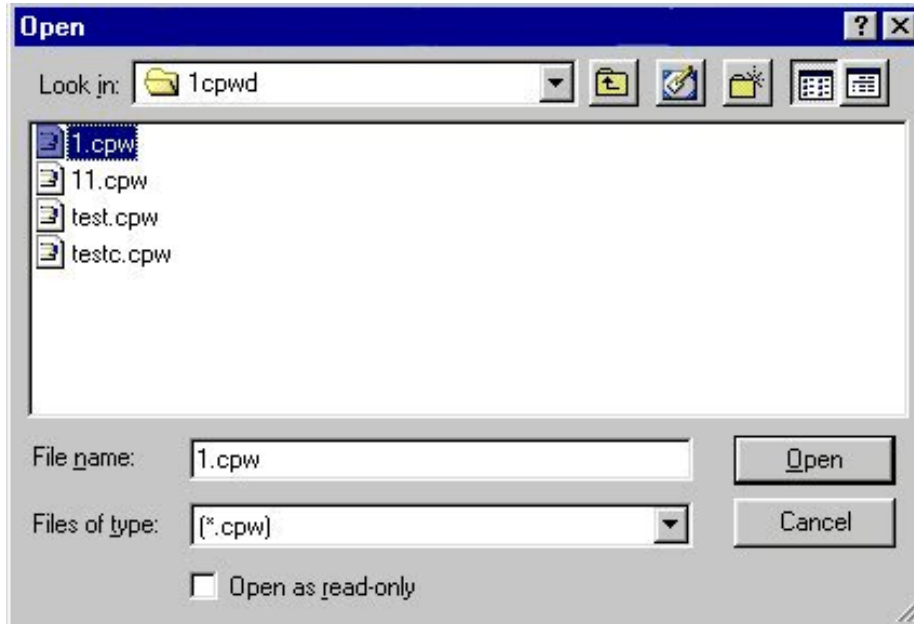
- ▶ Select " test " file & click " Open " button. A new window will open as follows, requiring confirmation.



- ▶ Click the " OK " button, again a new window will open as follows, confirming deletion of " test " file.



▶ Now click Edit Project File option. A new window will appear as follows, asking for the name of the project File to be Edited.



▶ Now click " 1 " file & click open. A new window will appear as follows, enabling user to change the various project parameters.

Project File : Edit Project Details [X]

File Name : C:\1cpwd\1.cpw Date : 14/2/07

Organization :

Project :

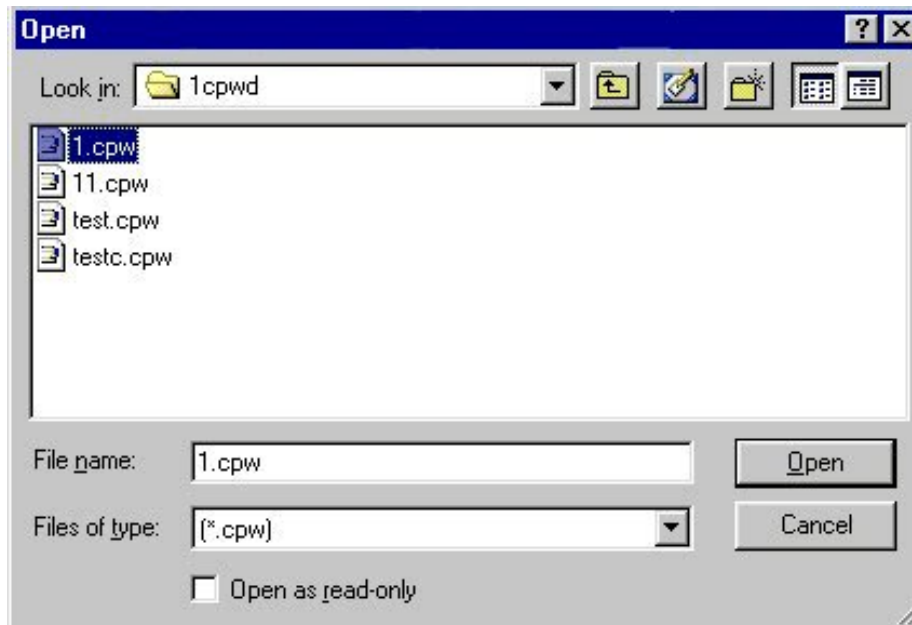
Project No :

Client ID :

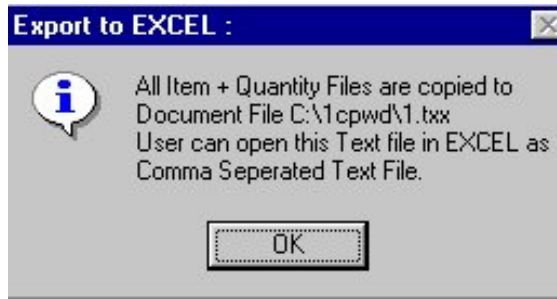
Building / Structure ID :

Project Duration in Months :	<input type="text" value="24"/>	Project Over Head in %	<input type="text" value="10"/>
Taxes in %	<input type="text" value="4"/>	Profit Margin in %	<input type="text" value="10"/>
Skill labour Wage / day	<input type="text" value="250"/>	Un Skilled Labour Wage	<input type="text" value="180"/>
Foreman Cost / day	<input type="text" value="350"/>	Mobilization Advance in %	<input type="text" value="10"/>
Recovery of Advance in %	<input type="text" value="10"/>	Security Deposit in %	<input type="text" value="10"/>

- ▶ After you have completed editing the various project parameters click " EXIT " button.
- ▶ Now click Export QTY to EXCEL option. A new window will appear as follows, asking for the name of the project File to be Exported to EXCEL.



- ▶ Now click " test " file & click open. A new window will appear as follows, indicating that all the quantity files are copied to a new file with " .txx " extension.



▶ User can open this Text file in EXCEL as comma separated Text File.

STEP NO. 11 IS OVER.

LEARN ELECTRIC COST STEP BY STEP

STEP NO. 12

Read_Me Files Edit_Items_Rates Add_Edit_Quantities Summary Graphics Forms_1 Forms_2 Master_Data_Sheet Load_Calc. Misc

ELECTRIC COST

Y. A. AGBOATWALA
B. E. (Civil), MIE, DBM, FIV

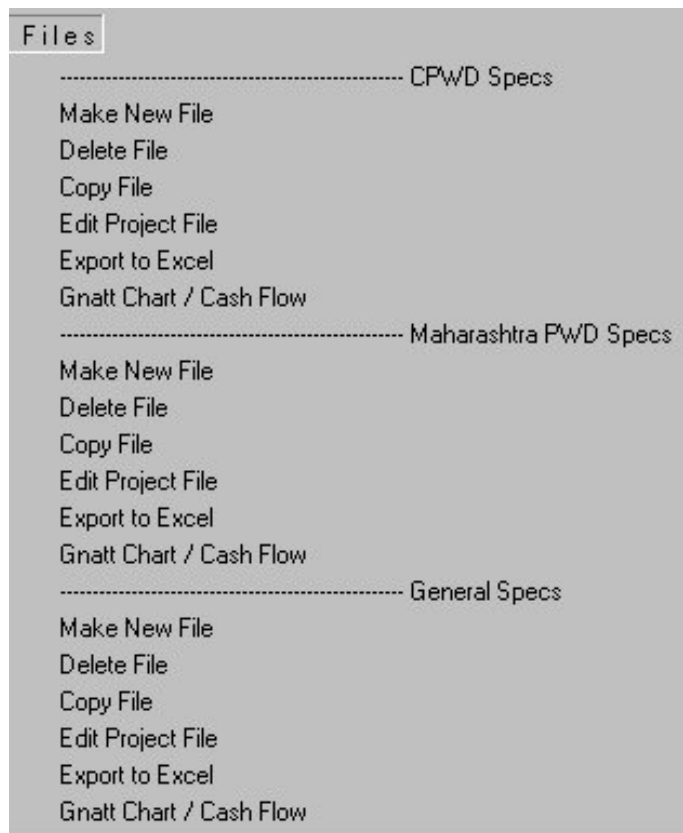
▶ When Program starts, the graphics above is displayed. The Menu bar contains following options.

- I. Read Me
- II. Files
- III. Edit Item Rates
- IV. Add, Edit Quantities
- V. Summary
- VI. Graphics
- VII. Forms_1
- II X. Forms_2
- IX. Master Data Sheet <MDS>
- X. Load Calculation
- XI. Miscellaneous

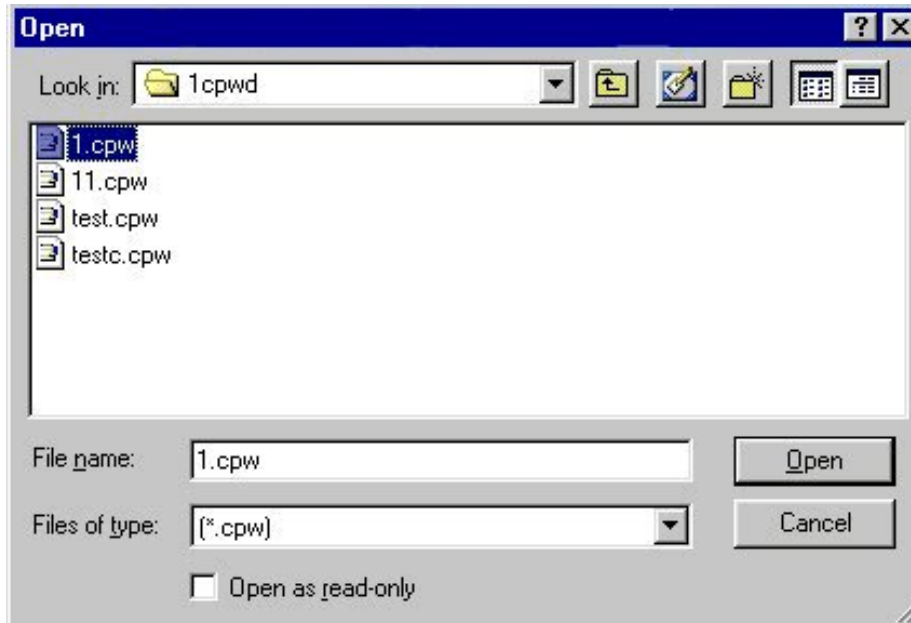
Click the FILES option in the MENU bar. The following window will open.

Note that all the options under the FILES i.e. CPWD Specs, Maharashtra PWD Specs and General Specifications are similar in operation.

▶ *We will consider CPWD option only for demonstration purpose.*

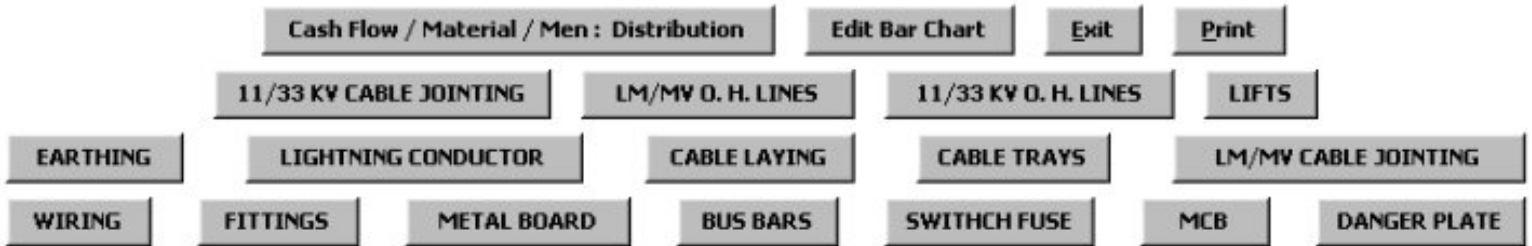


- ▶ Now click Gnatt Chart / Cash Flow option. A new window will appear as follows, asking for the file name.

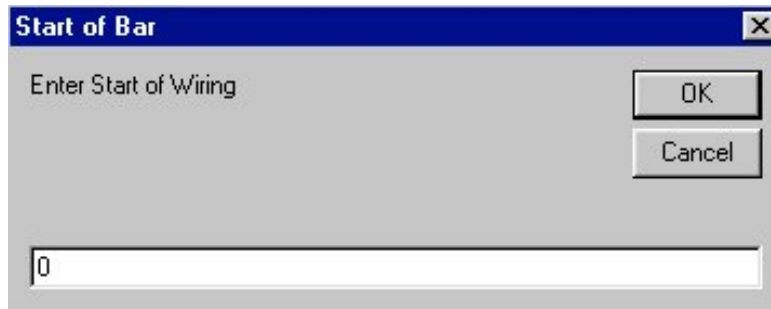


- ▶ Now click " 1 " file & click open. A new window will appear as follows, showing empty Gnatt / Bar Chart.

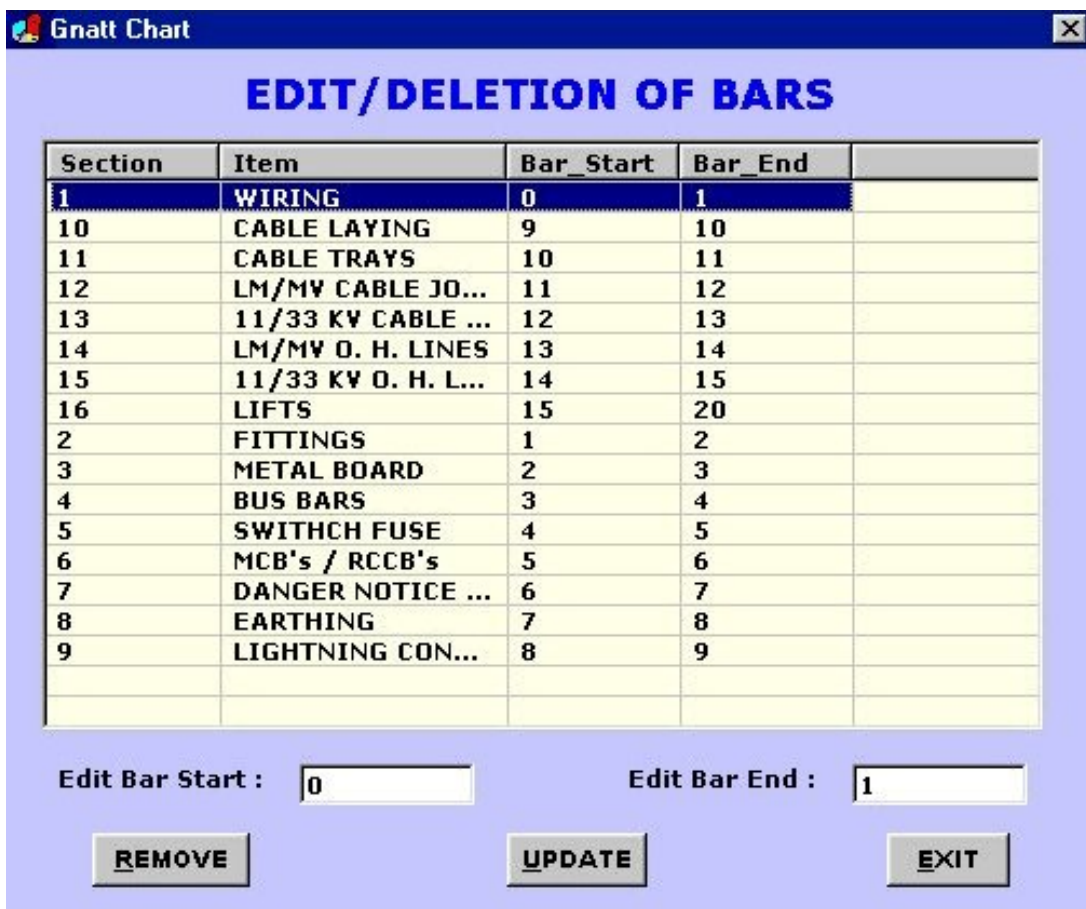
	Chapter / Item	Time in Months																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	WIRING																								
2	FITTINGS																								
3	METAL BOARD																								
4	BUS BARS																								
5	SWITHCH FUSE																								
6	MCB's / RCCB's																								
7	DANGER PLATE																								
8	EARTHING																								
9	LIGHT CONDUCT																								
10	CABLE LAYING																								
11	CABLE TRAYS																								
12	LM/MV JOINT																								
13	11/33 KV JOINT																								
14	LM/MV OH LINE																								
15	11/33 KV OH LINE																								
16	LIFTS																								



- ▶ Now let us start constructing Gnatt / Bar Chart. Click " Wiring " button situated at the left bottom corner of chart. The following window will appear asking for " Enter Start of Wiring ". Type 0 & press " OK " .



- ▶ Again a new window will appear asking for " Enter End of Wiring ". Type 1 & press " OK ". This window is displayed as under.



- ▶ Just Edit Bar Start or Edit Bar End and click on UPDATE button to register changes. Note that bar end should always be greater than bar start. If you want to delete any activity, (BAR) just take mouse to that ROW & click (select) and press the " REMOVE " button. Now you will notice that the selected activity has disappeared from this edit menu as well as the corresponding RED BAR has also been removed from the BAR CHART. Click Exit.
- ▶ Click on the " Cash Flow / Material / Men distribution : " Button to display these parameters. A new window will appear as shown in following 3 nos. of graphics.

COST DISTRIBUTION / CUMULATIVE CASH FLOW :

Organization : Super Civil CD

Client : CPWD

Project : Transformer Project

Project No : 8912

Structure ID : 22 KV Sub Station at NH4

Date : 19/2/07

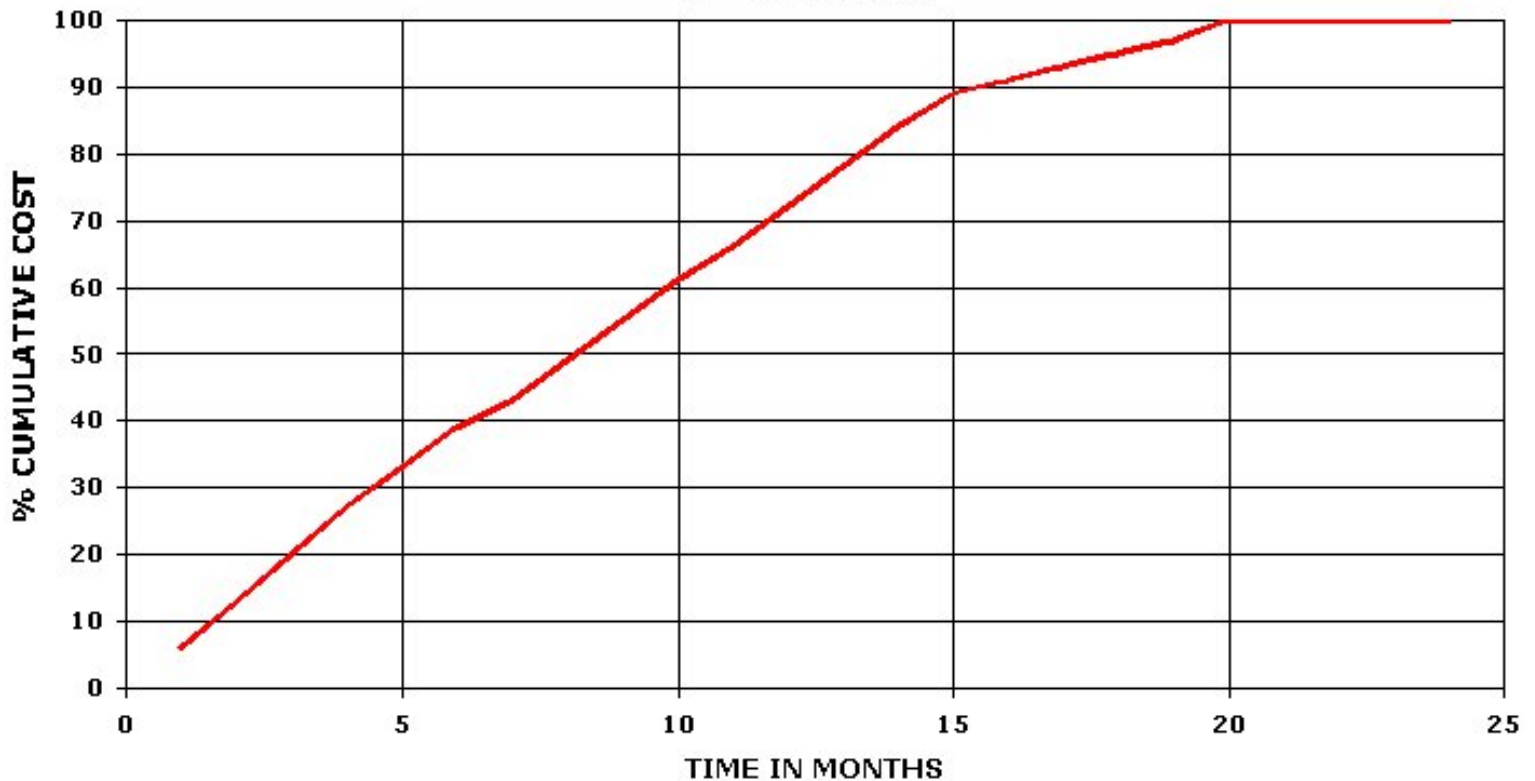
Month	1	2	3	4	5	6	7	8
Value	57040	58280	62000	62000	49600	49600	37200	49600
% Cumulative	6	13	20	27	33	39	43	49
Over Head	4600	4700	5000	5000	4000	4000	3000	4000
Tax	1840	1880	2000	2000	1600	1600	1200	1600
Profit	4600	4700	5000	5000	4000	4000	3000	4000
Skill Lab - No	13.75	15	6.25	6.25	12.5	12.5	12.5	12.5
Unskill Lab - ...	38.19	41.66	17.36	17.36	34.72	34.72	34.71	34.72
Foreman - No	1.96	2.14	0.89	0.89	1.78	1.78	1.78	1.78
Cash Param...								
Cost	52440	53580	57000	57000	45600	45600	34199.99	45600
Labour Cost	10997.7	11997.8	4998.8	4998.8	9997.6	9997.6	9995.79	9997.6
Material + O...	41442.3	41582.19	52001.2	52001.2	35602.4	35602.4	24204.19	35602.4
Adv. Recovery	0	5704	5828	6200	6200	4960	4960	3720
SD Recovery	0	5704	5828	6200	6200	4960	4960	3720
Cash Flow	74934.3	67126.2	67169.2	59769.2	47370.4	41450.4	35532.21	31090.42

9	10	11	12	13	14	15	16	17
49600	49600	49600	49600	49600	49600	49600	17360	17360
55	61	66	72	78	84	89	91	93
4000	4000	4000	4000	4000	4000	4000	1400	1400
1600	1600	1600	1600	1600	1600	1600	560	560
4000	4000	4000	4000	4000	4000	4000	1400	1400
12.5	12.5	12.5	12.5	12.5	12.5	12.5	2.5	2.5
34.72	34.72	34.72	34.72	34.72	34.71	34.72	6.94	6.94
1.78	1.78	1.78	1.78	1.78	1.78	1.78	0.35	0.35
45600	45600	45600	45600	45600	45599.99	45600	15960	15960
9997.6	9997.6	9997.6	9997.59	9997.6	9995.79	9997.6	1996.7	1996.7
35602.4	35602.4	35602.4	35602.41	35602.4	35604.19	35602.4	13963.3	13963.3
4960	4960	4960	4960	4960	4960	4960	4960	1736
4960	4960	4960	4960	4960	4960	4960	4960	1736
25170.42	19250.41	13330.4	7410.4	1490.38	-4427.82	-10349.62	-8268.73	-10340.73

17	18	19	20	21	22	23	24	Total
17360	17360	17360	17360	0	0	0	0	859320
93	95	97	100	100	100	100	100	100
1400	1400	1400	1400	0	0	0	0	69300
560	560	560	560	0	0	0	0	27720
1400	1400	1400	1400	0	0	0	0	69300
2.5	2.5	2.5	2.5	0	0	0	0	191
6.94	6.94	6.94	6.94	0	0	0	0	531
0.35	0.35	0.35	0.35	0	0	0	0	27
15960	15960	15960	15960	0	0	0	0	790019.99
1996.7	1996.7	1996.7	1996.7	0	0	0	0	152946.6
13963.3	13963.3	13963.3	13963.3	0	0	0	0	637073.39
1736	1736	1736	1736	1736	0	0	0	85932
1736	1736	1736	1736	1736	0	0	0	85932
-10340.73	-12412.73	-14484.73	-16556.73	69299.97	0	0	0	69299.97

- ▶ The project duration of maximum of 24 months is allowed at a time. Note that Cash Flow / Material / Men distribution is entirely dependent on Gantt Chart. If you prepare a Bar Chart of 12 months duration & only few required activities then Cash Flow / Material / Men distribution will correspond to 12 months duration & those selected activities.
- ▶ Lastly Click on the " S CURVE " button. The " S CURVE " will be displayed as under.

S CURVE



- ▶ Click EXIT " 3 " times to return to main menu.

STEP NO. 12 IS OVER.

OTHER SOFTWARES:

SUPER CIVIL CD - Single Point Solution To Your Civil Engineering Needs

SUPER RATE ANALYSIS - Rate Analysis Of 1299 Nos. Of Civil Engineering Items

2D FRAME ANALYSIS - Discover The Beauty Of Structural Analysis

R C F - A Software for Analysis, Design, Estimation & Costing of RCC Floors

S S F - Analysis, Design, Estimation & Costing of Steel Buildings, revised as per IS 800 : 2007

Q T Y - Quantity Estimation & Cost, Project Control

SUPER REAL VALUATION - A Software For Immovable Properties

ROADS - Pavement Design & Rate Analysis Of Road Items

ROAD ESTIMATE - Quantity Estimation & Cost, Project Control For Road

HVAC COST - Costing, Project Control & Design For HVAC Engineers

BILLING JI - A Database Management Software For General Billing

RA BILL - A Database Management Software For Item Rate Contract Billing

BUILDERS BILL - A Database Management Software for Billing of Lump sum Contracts

BID ANALYSIS - A Software For Technical & Commercial Tender Analysis

RAFT FOUNDATION - Analysis, Design, Estimation, Costing & Drawing of RCC Raft Foundation

STEEL_2007 - Limit State design of Steel as per IS 800 : 2007

SITE CONTROL - A Management Software for Resource Control At Site.

DESIGN & DRAWING CONTROL - A DBM Software for Control of Design & Drawing Manhours.

COMPOSITE - A Software for Analysis, Design, Costing & Drawing of Composite Floor Buildings

INSTA COST - A Software for Estimating Project Cost & Tender SOQ Instantly

FLAT SLAB - A Software for Analysis, Design, Estimation, Costing & Drawings of Flat Slabs

FLAT RAFT - A Software for Analysis, Design, Estimation, Costing & Drawings of Rigid RCC Flat Rafts

OPTIMIZE BAR - A Software for Optimization of Reinforcements from Existing Bar Bending Schedule

OPTIMIZE STEEL - A Software for Optimization of Steel Sections from Existing Fabrication Drawing

AutoQty - A Software for Automatic Quantity & Cost Estimation from AutoCAD Drawings