

**EVOLUTION
OF
A
COMPUTER AIDED
PROJECT MANAGEMENT
INTERFACE**

A Project Report

**Submitted in partial fulfillment
of the requirements for the award of the degree
of**

MASTER OF ARCHITECTURE

BY

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College of Architecture

University of Arizona

Tucson, Arizona

1992

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The Preface

I have been interested in Computer Aided Design since my undergraduate studies in India. I submitted a feasibility study of utilizing computers in architectural design in India as part of my thesis for the Bachelor of Architecture degree at the University of Madras, Madras India. I analyzed various techniques in computer aided spatial planning and synthesis as partial fulfillment for the award of the degree of Master of Architecture at the University of Roorkee, Roorkee India. At the University of Arizona, all my course work and teaching assistantships have been oriented towards computer applications in architecture.

As a CAD system manager the last five years, I have acquired valuable skills and experience in the practical applications of computers in various phases of architectural design. All through these years, both in the academic and in the office environment, I have had the opportunity to work on a variety of computer hardware ranging from main-frames and mini-computers to micro-computers and an array of programming languages and software applications.

With this background of a knowledge base in an academic environment and exposure to various aspects of computer aided design in architectural practice, I feel that this project has the necessary ingredients to satisfy both the academic requirements for the degree of Master of Architecture as well as providing an invaluable tool for the office.

There are, I believe, two classes of professionals, the generalists on the one hand and the specialists on the other. I feel I belong to the latter category, the computer specialist with a background in architecture. I would like to orient my career towards the development of tools to aid architects in the pursuit of excellence in design, a synthesis of two seemingly conflicting and contradictory interests, the rigid objective goals of

computer software programming on the one side and the nebulous subjective ideals of design on the other.

This project would, I hope, be a suitable embarkation point towards achieving that end.

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To Prof. Fred Matter and Prof. Ellery Green, I offer my profound thanks for their patience and the assistance rendered at the various stages of this project.

I wish to express my sincere gratitude to Mr. George M. Notter, Principal, Notter + Associates PC, Washington DC, for extending the use of the facilities in the preparation of this report and to Mr. Manuel A. Almagro, for his invaluable insights into the subtler aspects of office management.

Last but not the least, I would like to thank all my various friends and colleagues for all their concern, affection and gentle nagging ways.

Sukumar Srinivasan

The Introduction

"The contemporary architect practices in a very complex environment. He is faced with a predicament which threatens to assume phenomenal proportions. Problems have surfaced within the profession itself and pressures have mounted from outside; the nature of buildings has become more and more complicated; there are restricted time schedules; there is an abundance of data and very little time to analyze it.

On the other hand, pressures have developed in the form of the discerning public - the clients and the users, who have become more and more demanding. It is inconceivable that the architect's mind can really absorb and hold for recall a significant amount of the information, which is available to his creative pallet, with any reliability.

It is believed that the extension of the human ability to comprehend, react and respond can be found in the development of new techniques in design/ planning, especially computer applications.

The computer has become an integral component of the twentieth century and it does have the potential to reshape the entire practice of architectural design, as it has affected every other phase of human activity. The computer's capacity for storage/ retrieval, its phenomenal speed and its ability to display selected information in unique ways makes it an indispensable tool for the architect.

One of the recurring problems faced in the time honored design process is that valuable data is lost within a project and from project to project. The computer extends the architect's memory so that he is able to have access to any and all information within seconds. The architect can store/ retrieve information in any format he chooses.

The computer's ability to edit/ update information eliminates the storage of erroneous and redundant data.

One of the oft quoted characteristics of the computer is its phenomenal speed. If, by using the computer, the architect is able to shorten the design process, it means savings for the clients and in turn is translated into lesser working costs for the users of the facility.

The fourth aspect is the capability of the computer to display information in selected ways. It can produce information in the form of printed matter, voluminous reports, abstracts or in the form of two-dimensional or three-dimensional graphics. This aspect can be of immense help to the architect.

The flexible application of computer techniques allows the architect to develop a multilayered, multifaceted approach to design rather than a single design philosophy. It is essential to remember that the computer does not design. What it does is to eliminate the haphazard approach to design and hence influence the quality of the design. Computers are not meant to replace man but are machines meant to relieve him from wasting valuable time in doing routine tasks which can be done faster and more accurately on a computer."

For purposes of description and analysis it has been useful to assume that each architectural project proceeds by the performance of various functions, each marking the achievement of some identifiable goal. Functions have been conveniently grouped into four categories depending on whether they occur at the briefing, sketch design, construction documents or construction supervision phases. In addition, a fifth category of management functions has been defined; the overall coordination and control of the design and construction process.

Design functions are performed by the execution of design procedures. A design procedure has been defined as a describable sequence of operations having identifiable beginning and end points. Traditional architectural design procedures are usually

highly labor-intensive; they are executed by architects or technicians working with very simple equipment. "Consequently, large architectural offices are among the few places where one may still experience the Dickensian spectacle of rows of poorly paid junior staff bent over desks and engaged in tracing, copying, measuring, checking, annotating, calculating and other manual operations of a routine and repetitive character".

An alternative to performance of a function by execution manual design procedure is to employ a computer system to perform that function by the execution of an appropriate program. The range of functions for which useful programs have now been developed is impressive. A representative list compiled by some researchers follows:

Briefing Phase:

Feasibility Study

Economic feasibility analysis

Housing type mix analysis, etc.

Programming

Problem structuring

Activity data analysis, etc.

Sketch Design Phase:

Site Planning

Site mapping

Slope analysis, etc.

Schematic Design Synthesis

Floor plan layout

Three-dimensional spatial synthesis, etc.

Performance and Cost Analysis

Checking for compliance with the brief

Circulation analysis, etc.

Presentation

Plotting sketch plans, elevations, sections

Plotting perspectives, etc.

Production Documents Phase:

Detail Design

Building products data retrieval
Automated detailing, etc.

Costing

Generation of schedules
Pricing of bills of quantities, etc.

Production

Generation of schedules
Generation of specifications, etc.

Construction Supervision Phase:

Network analysis
Precedence diagramming, etc.

Management Functions:

Project tracking
Project budgeting
Time and payroll functions
Invoicing, etc.

It is this last mentioned phase or function that has been the focus of this project. As the title of the report states, this project is the process of development of a computer based interface within the realm of project management.

THE CONCEPTION

The Objective

The broad area of study, **Computer Applications in Architecture**, runs the gamut of computer system utilization in architectural design, from mundane business administration to the spectacular three-dimensional graphics. Many architectural firms today, use the computer as a tool in day-to-day applications such as word processing and spreadsheets and increasingly in the realm of computer aided drafting. Some of the more progressive ones have incorporated the computer into the conceptualization stage, while still others have developed very sophisticated programs for presentation purposes. My interest, primarily, has been more on the practical side, developing a tool for project managers to keep track of ongoing projects and to foresee any impending disasters. **The objective, then, is the development of a program, interfacing an accounting/ project management software with spreadsheets to produce reports, charts and computer graphics.**

The Specifics

The current project is not a hypothetical study but the response to the existence of a practical problem in an office environment. The organization in question is **Notter + Associates PC**, based in Washington, DC, an architectural firm specializing in historic preservation. The principal of the firm recently purchased an accounting/project management software, **Harper and Shuman's Micro/CFMS**, a database system into which information pertaining to the firm's employees, projects and finances are fed. This data may then be extracted into a spreadsheet environment such as **Microsoft Excel** to produce customized reports and charts. In addition, the data lends itself to the development of "what-if" scenarios to help project managers strategize effective project control. A logical future extension of this project, is the exporting of relevant data into a CAD software like **Autodesk's AutoCad** to generate large-format charts for monitoring projects.

The Goals - present and future

- Generation of reports within **Harper and Shuman's Micro/CFMS**
- Development of the interface to extract data into **Microsoft Excel**.
 - Generation of custom reports and charts within Excel.
 - Generation of project budget estimates within Excel.
 - Generation of "what-if" situations within Excel.
- Development of the interface to export data into **Autodesk's AutoCad**.
 - Generation of large-format graphs and charts within AutoCad.

The Scope

Given the complexity of the project and the restrictive time-frame, the scope of work has had to be very flexible. Several levels of sophistication had to be built in (as explained later) and an appropriate modular approach had to be adopted, whereby the breadth and the depth of the application could be expanded or contracted depending on the progress achieved. For all academic purposes the Master's report and the development of the tool demonstrates the existence of a valid problem, a sincere approach and attempt at solving it and the laying of a framework or guidelines for achieving a practical, usable implement for the future.

The Details

The following charts illustrate the various software packages, the intended input, the processing involved and the expected output. The diagrams demonstrate the interfacing of the modules and level of detail that may be achieved to make the project a viable tool in the office environment. Although this depicts the ideal scenario, the scope of the project had to be refined in order to meet the academic deadlines. Some of the modules, their associated reports, charts and graphics and the levels of sophistication would have to be achieved at a later date.

Modularity

The development of the project in modular format allows for some flexibility.

Level 1:

The graphical portion of the package, involving AutoCad, had to be dropped from the present scope and would have to be worked on in the future.

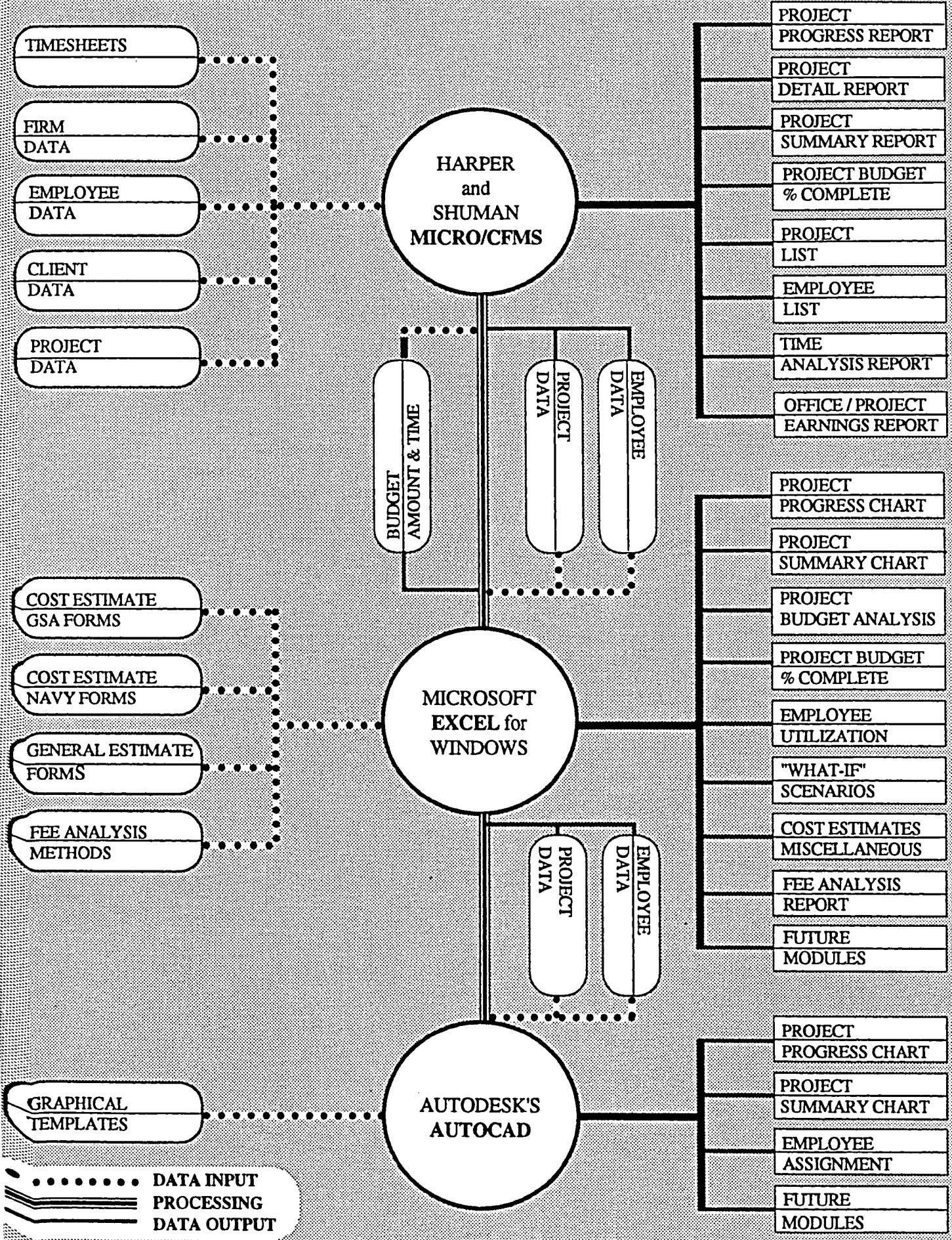
Level 2:

Within each software package, the expected output had to be refined or contracted. Again, they would have to be further extended and refinements added based on the needs of the office and the project managers.

INPUT

PROGRAM

OUTPUT



Levels of Sophistication

The three levels indicated, suggest that software development may be terminated at any point.

Level 1:

The package at this point is a bare working model, interfacing data within some of the modules. The operator at this level would necessarily have to be the programmer, with a good understanding of the structure and the components.

Level 2:

Further refinements being added on in the next iteration, the operation of the various modules would still require the services of a fairly sophisticated user, with an above average grasp of the programs involved.

Level 3:

At this level most of the kinks in the program would have been ironed out and error trapping (the ability of the software to anticipate and recover from user errors) would have been built in. The user at this juncture could be a lay person, unfamiliar with both hardware and software, but willing to learn.

To reiterate, the whole endeavor is academic to begin with, to demonstrate the involvement of computers in project management and the use of various software to achieve desired effects. With further improvements and embellishments, the complete package would be a very sophisticated tool readily accessible to all project managers, irrespective of their systems background.

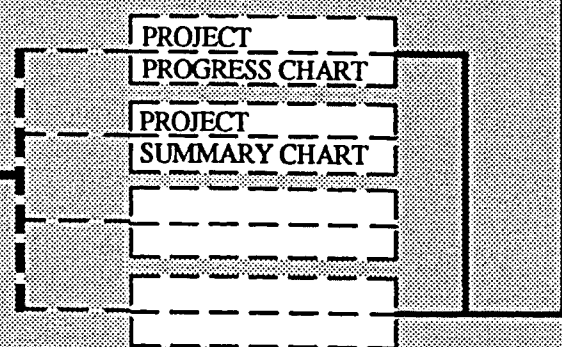
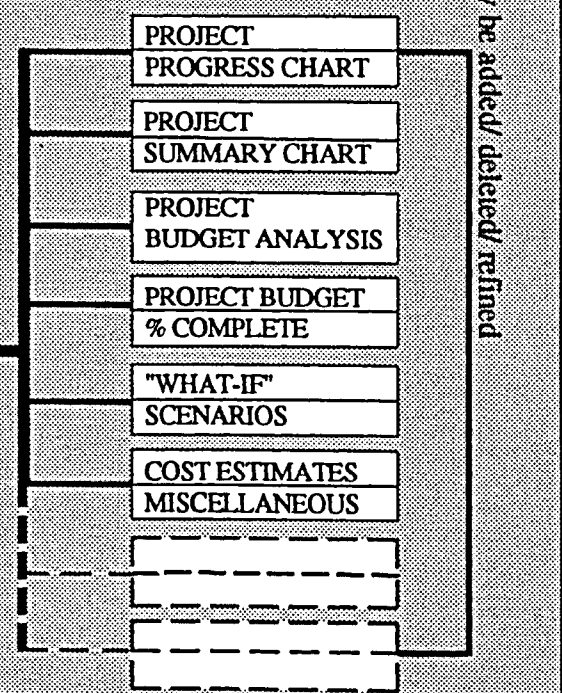
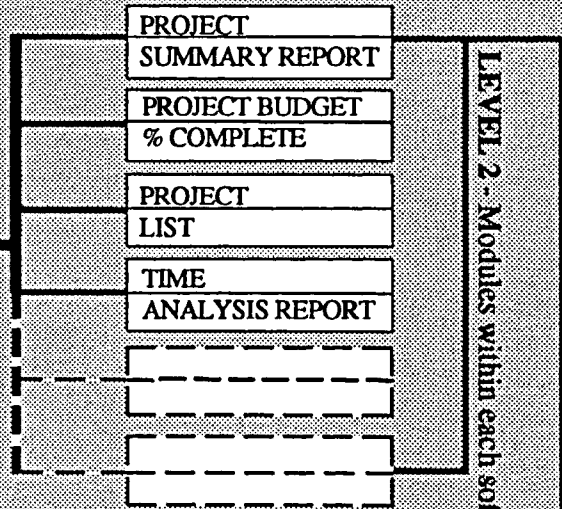
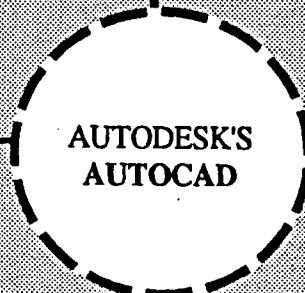
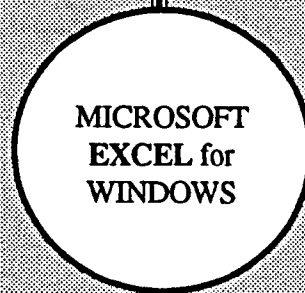
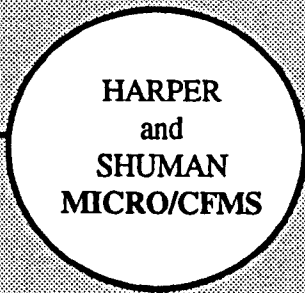
SCOPE OF THE PROJECT

- Modules within current scope
- - - - - Modules added/ deleted/ refined

MODULARITY

LEVELS OF SOPHISTICATION

- LEVEL 3 - Lay User's Level - Further refinements - Error trapping included - Minimal software expertise
- LEVEL 2 - Sophisticated User's Level - Refinements added - Above average software expertise required
- LEVEL 1 - Programmer's level - Development of bare software engine - No frills - Working model



LEVEL 1 - Large format graphics module may be added/ deleted/ refined

LEVEL 2 - Modules within each software may be added/ deleted/ refined

THE EVOLUTION

The Micro / CFMS Module

The Micro / CFMS Module

What is Micro/ CFMS?

Micro/ CFMS is a set of computer programs that offers sophisticated project management and accounting services to architectural, engineering and environmental consulting firms.

Data pertaining to the firm, such as employees, projects and finances are fed into the Micro/ CFMS database. The program is then instructed to post the data (process and charge it to the appropriate projects and accounts). Reports are printed after the data is posted. These reports contain information that help the firm manage projects and finances effectively.

Who uses Micro/ CFMS?

The various professionals who may use the software are:

Principals of firms:

- Making installation decisions;

- Reading and interpreting certain report for use in management decisions.

Project Managers:

- Reading and interpreting certain reports;

- Completing project budget worksheets;

- Printing selected reports;

- Reviewing bills and invoices.

Bookkeepers:

- Supervising all functions performed with Micro/ CFMS and to act as the overall coordinator among users of the system;

- Overseeing and approving all accounting transactions entered into the system;

Reviewing certain reports for accuracy and reasonableness.

Data Entry Operators:

Entering and posting all data;

Printing reports;

Performing disk maintenance;

Backing up data.

The Micro / CFMS Components

The Micro/ CFMS software is a modular system which is fully integrated, which means that all modules share information.

Project Control Module:

The Project Control module uses labor, expense and project budgeting data to produce reports that help the firm control project costs.

Accounting Module:

The Accounting module adds financial data to project control data so that financial statements can be produced. It also adds revenue/ profitability components to project reports.

Billing Module:

The Billing module uses Project Control and Accounting information to automate the billing process. There are various options to invoice a project and the capability of customizing the appearance of bills to suit the firm's needs.

Payroll Module:

The Payroll module lets the firm process payroll functions including creating a payroll journal, accounting for various types of accrued time, generating employee paychecks, printing withholding statements and printing worksheets for assisting in filling out the various state and federal tax forms.

Accounts Payable Module:

The Accounts Payable module allows the tracking of vendor invoices and the generation of checks for vendors.

Profit Planning Module:

The Profit Planning module is a firmwide budgeting and financial reporting tool.

It allows the development of budgets for revenue and expense accounts in the general ledger and then reporting the actual results against the planned results.

Spreadsheet Interface Module:

The Spreadsheet Interface module allows the selection of data from the Micro/CFMS files and reformatting for use with a spreadsheet software package.

Profit Center Reporting:

Profit Center Reporting allows the monitoring the profitability of discrete segments of the firm's business. Financial statements, project reports and other reports broken out by profit center or consolidated for the entire firm may be printed out.

Report Writer Module:

The Report Writer module allows the creation of simple and complex report and using virtually any information in the Micro/CFMS database.

The Input

The Input for the Micro/ CFMS module consists of:

Employee Data

Timesheets

Employee File Maintenance

Project Data

Project Expense

Project Budgets

Percent Completes

Firm Data

Labor Codes

Bank Codes

Historic Data

Income Statement Budgets

Accounting Data:

Cash Disbursements

Cash Receipts

Journal Entries

Accounts Payable Vouchers

Billing Data:

Labor and Expense Transactions

Client Data

Employee Number 00001 Apple, William

Project	Task	Labor Code	Regular Hours	Overtime Hours	
09015.00	201	401	80.0	80.0	Seaview Wharf Condo Dev.
.....	
.....	
.....	
.....	
.....	
.....	
.....	
.....	
.....	
		Totals	80.0	80.0	

Task Name:

Lab Code:

Mode: Showing

Employee File Maintenance

Employee Number	00001
Last Name	Apple
First Name	William
Hourly Rate	30.00
Overtime Pct	100
Target Ratio	55
Employee Type	P
Hire Date	01/31/75
Date last raise	12/31/89
Status	Active
Select code 1	
Select code 2	
Select code 3	

Enter number for specific employee, RETURN for next, ESC to recall menu

Apple and Bartlett

Employee List

Page 1
11/13/92
07:59 PM
Ver 10.0

Employee Number	Name/ Select Codes	Type Status	Cost Rate	Ovt %	Target Ratio	Hire Date	Raise Date
00001	Apple William	P A	30.00	100	55	01/31/75	12/31/89
00002	Bartlett James	P A	30.00	100	65	01/31/75	12/31/89
00101	Gray Brenda	E A	17.00	100	85	02/28/81	12/31/89
00201	Stone Richard	E A	15.00	100	95	04/01/82	12/31/89
00202	Lambert Roberta	E A	15.00	100	95	08/01/84	12/31/89
00203	MacKenzie Jonathan	E A	15.00	100	95	04/02/90	04/02/90
00301	Spencer Wilbur	E A	8.00	100	95	09/01/88	12/31/89
00302	Davisson Emily	E A	7.50	100	95	04/02/90	04/02/90
00901	Smithfield Joanne	E A	11.00	150	5	10/01/89	12/31/89

** End of Report - 9 Employees Listed **

Project Number 09015.00
 Project Name Seaview Wharf Condo Dev.
 Description
 Client
 Project Type R
 Task Format Small
 Principal Apple
 Project Manager Gray
 Client SWC
 Type of Work Ind
 Office Dtnw
 Status Active
 Fee 110000
 Budgeted OH Rate
 Revenue Recognition Y

Project Tasks	
101	Design Services
201	Construction Documents
301	Construction Admin.
401	Additional Services

Enter project number; RETURN for next one; ESC to recall menu

Project List

Principal: Apple

Project	00008.00	Accounting					
Type	Overhead	Status	Active				
Principal	Apple	Proj Manager	Smithfield				
Project	000P5.00	Business Development					
Type	Promotional	Status	Active				
Principal	Apple	Proj Manager					
Project	000P5.01	DAK Office Proposal					
Type	Promotional	Status	Active				
Principal	Apple	Proj Manager	Gray				
Client	DAK	Type of Work			Office		
Project	08905.00	City Hall					
Type	Regular	Status	Active	Rev Rec Y	Bud OH Rate		
Principal	Apple	Proj Manager	Gray		Fee	175000	
Client	COC	Type of Work	Govt		Office		Dtwn
Project	09001.00	University Library					
Type	Regular	Status	Active	Rev Rec Y	Bud OH Rate		
Principal	Apple	Proj Manager	Stone		Fee	71000	
Client	UNH	Type of Work	Educ		Office		Subrb
Project	09004.00	GNH Music Center					
Type	Regular	Status	Active	Rev Rec Y	Bud OH Rate		
Principal	Apple	Proj Manager	Lambert		Fee	22000	
Client	GNHP	Type of Work	Educ		Office		Dtwn
Project	09007.00	CAS Residence					
Type	Regular	Status	Active	Rev Rec Y	Bud OH Rate		
Principal	Apple	Proj Manager	Stone		Fee	27300	
Client	CAS	Type of Work	Res		Office		Dtwn
Project	09009.00	ABC Plaza Study					
Type	Regular	Status	Active	Rev Rec Y	Bud OH Rate		
Principal	Apple	Proj Manager	Gray		Fee	70000	
Client	PIT	Type of Work	Office		Office		Subrb
Project	09013.00	West Glen Elem Addition					
Type	Regular	Status	Active	Rev Rec Y	Bud OH Rate		
Principal	Apple	Proj Manager	Gray		Fee	41000	
Client	PAISD	Type of Work	Educ		Office		Subrb
Project	09015.00	Seaview Wharf Condo Dev.					
Type	Regular	Status	Active	Rev Rec Y	Bud OH Rate		
Principal	Apple	Proj Manager	Gray		Fee	110000	
Client	SWC	Type of Work	Ind		Office		Dtwn
Task	101	Design Services					
Task	201	Construction Documents					
Task	301	Construction Admin.					

Project List

Principal: Apple

Task	401	Additional Services				
Project	09017.00	Talbots-Region				
Type	Regular	Status	Active	Rev Rec Y	Bud OH Rate	
Principal	Apple	Proj Manager	Gray	Fee		75000
Client	TALBT	Type of Work	comrc	Office		dtwn
Task	00A	Architectural				
Task	00E	Engineering				

** End of Report - 11 Projects Listed **

Labor Code List

Code Description

Labor Code Level 1

0	General
1	Predesign
2	Site Analysis
3	Schematic Design
4	Design Develop
5	Const Documents
6	Bid/Negotiate
7	Const Admin
8	Post Construct.
9	Sup. Services
A	Architectural
B	Bid/Negotiate
C	Civil
D	Design/Plan/Spec
E	Electrical
G	General
H	HVAC
I	Interiors
M	Mechanical
P	Prelim Services
R	Study/Report
S	Structural
V	Survey
W	PROJECT HISTORY
Z	CAD/Computer

Labor Code Level 2

00	General
01	Predesign
02	Site Analysis
03	Schematic Design
04	Design Developmt
05	Const Docs
06	Bid/Negotiate
07	Const Admin
08	Post Constructn
09	Supplemental
10	General
11	Study/Report
12	Survey
13	Prelim. Services
14	Design/Plan/Spec
15	Bid/Negotiate
16	Construction Adm
17	Additional Serv.
98	Field Work
99	Computer Time
A1	Admin/General
A2	Admin/Proj Admin
A3	Admin/Proj Cost

Code	Description
A4	Admin/Const Cost
B1	Bid/Materials
B2	Bid/Addenda
B3	Bid/Evaluations
B4	Bid/Cntrct Agrmt
D1	Design/General
D2	Design/Concept
D3	Design/Master
D4	Design/Detail
D5	Design/CAD
M1	Mtgs/General
M2	Mtgs/Proj Plan
M3	Mtgs/Client
M4	Mtgs/Present
M5	Mtgs/Subcontract
M6	Mtgs/Discip Coor
M7	Mtgs/Design
M8	Mtgs/Negotiation
P1	Plng/Subdivision
P2	Plng/Development
P3	Plng/Urban
P4	Plng/Site Usage
P5	Plng/Maintenance
P6	Plng/Other
R1	Draft/General
R2	Draft/Work Draw
R3	Draft/Const Draw
R4	Draft/Revisions
R5	Draft/CAD
S0	Stdy/Exploratory
S1	Stdy/Site Use
S2	Stdy/Ex Facility
S3	Stdy/Environment
S4	Stdy/Zoning
S5	Stdy/Utilities
S6	Stdy/Climate
S7	Stdy/Materials
S8	Stdy/Cost
S9	Stdy/Urban
WW	PROJECT HISTORY
ZZ	CAD/Computer

End of List **

Apple and Bartlett

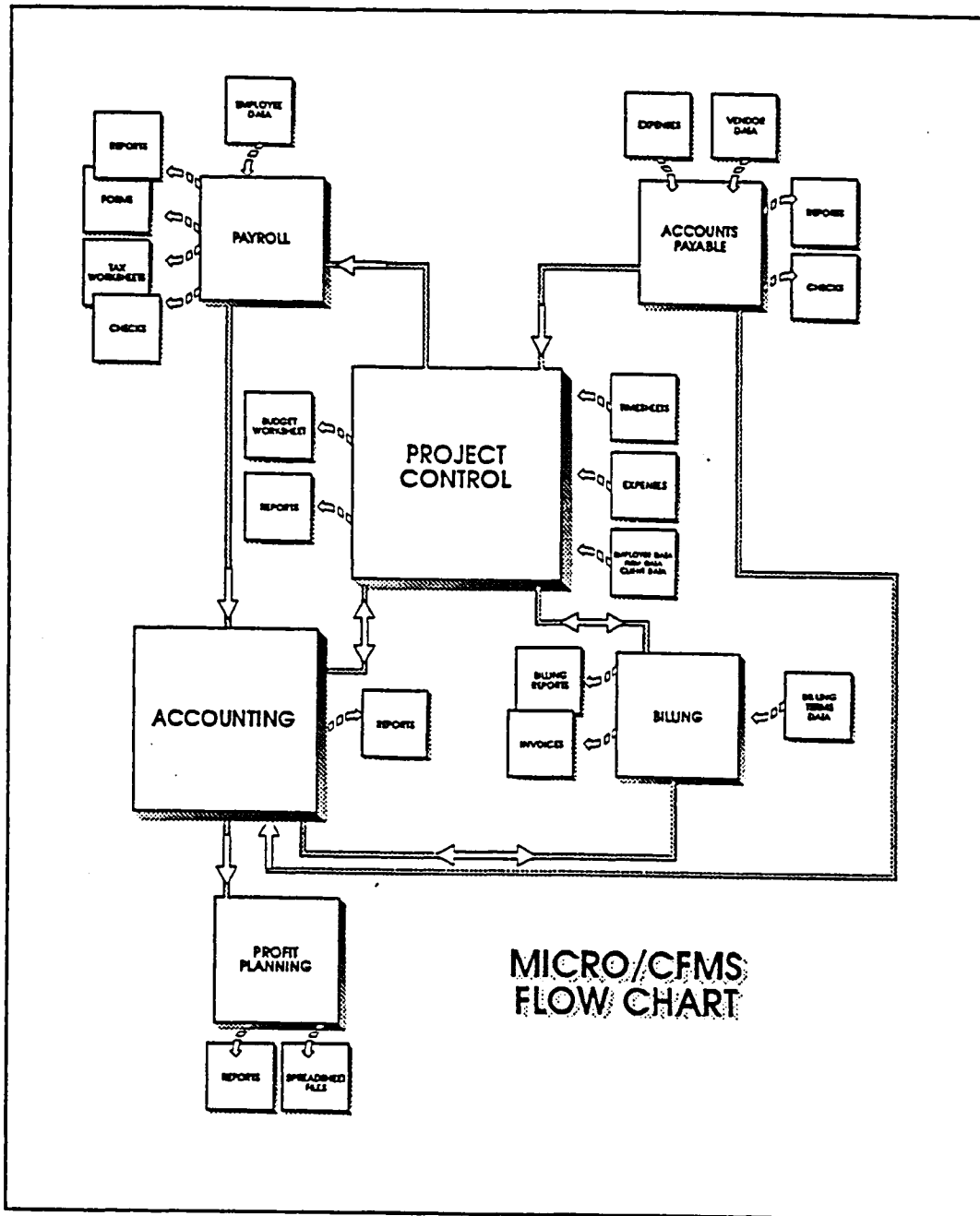
Bank Code List

Page 1
11/14/92
10:36 AM
Ver 10.0

Bank Code	Description	Account	Next Chkref
001	Checking Account	101.00	21

** End of Report - 1 Bank Codes Listed **

The Processing



The Output

The output from the Micro/ CFMS module consists of:

Project Reports:

Project Progress Reports

Project Detail Reports

Project Summary Report

Project Budget Analysis

Time Analysis Report

Accounting Reports:

Balance Sheet

Income Statement

Office Earnings Report

Aged Accounts Receivable Reports

Accounts Receivable Ledger

Custom Financial Statement

General Ledger Account Analysis

Cash Journal

Accounts Payable Checks

Voucher List with Aging

Cash Requirements

A/P Cash Journal

Billing Reports:

Client Invoices

Unbilled Detail Report

Payroll Reports:

Payroll Journals

Payroll Checks

Tax Reports

Profit Planning Reports:

Profit Analysis Reports

Miscellaneous Data:

Formatted Spreadsheet Data

Project Progress Report
For the period 05/01/90 - 05/12/90

Principal: Apple

Project 09015.00 Seaview Wharf Condo Dev.
Type Regular Status Active Rev Rec Y
Principal Apple Proj Manager Gray Bud OH Rate
Client SWC Type of Work Ind Fee Office 110000
Dtw

=====										
Task	Design Services									

Description	--Current--		Proj-to-Date		---Budget---		%	%	--Balance--	
	Hrs	Cost	Hrs	Cost	Hrs	Cost	Exp	Rpt	Hrs	Cost
A Architectural										
03 Schematic Design										
Apple	12	360								
Gray	15	255								
Total Schemati	27	615	211	4149	300	4800	86	75	89	651
04 Design Developmt										
Apple	10	300								
Gray	8	136								
Stone	10	150								
MacKenzie	15	225								
Total Design D	43	811	228	4326	300	4800	90	75	72	474
Total Architect	70	1426	439	8475	600	9600	88	75	161	1125
Total Labor	70	1426	439	8475	600	9600	88	75	161	1125
Overhead*		1897		11272		15360	73	75		4088

Direct Expenses										
622.00 Reproductions				5		50	10	10		45
629.00 Misc Direct Ex				46		150	30	30		104
Total Directs				51		200	25	25		149
Total Lab-OH-Di	70	3323	439	19797	600	25160	79	75	161	5363

Reimbursable Expenses										
511.00 Structural Con										
AP 00046 05/12/90		40								
Subtotal		40								
512.00 Mechanical Con				195		200	98	75		5
521.00 Travel and Lod				210		200	105	100		10-
521.01 Meals				150		150	100	100		
522.00 Reproductions				169		100	169	100		69-
524.00 Long Distance				195		300	65	67		105
529.00 Misc Reimburse				35		50	71	75		15
Total Reimbs.		40		966		1050	92	81		39
Task Totals	70	3363	439	20763	600	26210	79	75	161	5447

Project Progress Report
For the period 05/01/90 - 05/12/90

Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Financial Analysis (Project 09015.00, Task 101)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	
CUR					3363	3363-		Recv:
YTD	22630	2319	24949	24949	20763	4185	17 %	A/R: 24949
MTD	22630	2319	24949	24949	20763	4185	17 %	Unb: EMult: 2.82

Task 201 Construction Documents

Description	--Current--		Proj-to-Date		---Budget---		% Exp	% Rpt	--Balance--	
	Hrs	Cost	Hrs	Cost	Hrs	Cost			Hrs	Cost
Architectural										
6 Const Docs					900	11600			900	11600
total Labor					900	11600			900	11600
Overhead*						18560				18560
Direct Expenses										
2.00 Reproductions						200				200
3.00 Models/Renderi						500				500
9.00 Misc Direct Ex						150				150
Total Directs						850				850
total Lab-OH-Dir					900	31010			900	31010

Financial Analysis (Project 09015.00, Task 201)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	
CUR								Recv:
YTD								A/R:
MTD								Unb:

Task 301 Construction Admin.

Description	--Current--		Proj-to-Date		---Budget---		% Exp	% Rpt	--Balance--	
	Hrs	Cost	Hrs	Cost	Hrs	Cost			Hrs	Cost
Architectural										
06 Bid/Negotiate					200	3200			200	3200
07 Const Admin					200	3200			200	3200
total Architectural					400	6400			400	6400

Project Progress Report
For the period 05/01/90 - 05/12/90

Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Description	--Current--		Proj-to-Date		---Budget---		% Exp	% Rpt	--Balance--	
	Hrs	Cost	Hrs	Cost	Hrs	Cost			Hrs	Cost
Total Labor					400	6400			400	6400
Overhead*						10240				10240

Direct Expenses										
615.00 Other Consulta						600				600
621.00 Travel and Lod						450				450
621.01 Meals						50				50
629.00 Misc Direct Ex						100				100
Total Directs						1200				1200
Total Lab-OH-Dir					400	17840			400	17840

Financial Analysis (Project 09015.00, Task 301)										

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	Recv:
CUR								
YTD								A/R:
JTD								Unb:

=====										
Task	401 Additional Services									
Description	--Current--		Proj-to-Date		---Budget---		% Exp	% Rpt	--Balance--	
	Hrs	Cost	Hrs	Cost	Hrs	Cost			Hrs	Cost
Architectural										
08 Post Constructn					40	640			40	640
09 Supplemental					60	960			60	960
Total Architectural					100	1600			100	1600
Total Labor					100	1600			100	1600
Overhead*						2560				2560

Direct Expenses										
629.00 Misc Direct Ex						100				100
Total Directs						100				100
Total Lab-OH-Dir					100	4260			100	4260

Reimbursable Expenses										
511.00 Structural Con						200				200
529.00 Misc Reimburse						100				100
Total Reimbs.						300				300
Task Totals					100	4560			100	4560

Apple and Bartlett

Project Progress Report
For the period 05/01/90 - 05/12/90

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Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Financial Analysis (Project 09015.00, Task 401)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.			
CUR										
YTD										
JTD										
Project Totals	70	3363	439	20763	2000	79620	26	25	1561	58857

Financial Analysis (Project 09015.00)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.			
CUR					3363	3363-				
YTD	22630	2319	24949	24949	20763	4185	17 %	Recv:		
JTD	22630	2319	24949	24949	20763	4185	17 %	A/R:	24949	
								Unb:		
								EMult:	2.82	

Project Progress Report
For the period 05/01/90 - 05/12/90

Principal: Apple

Project	09015.00	Seaview Wharf Condo Dev.							
Type	Regular	Status	Active	Rev	Rec	Y	Bud	OH	Rate
Principal	Apple	Proj	Manager	Gray			Fee		110000
Client	SWC	Type	of Work	Ind			Office		Dtwn

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Task 101 Design Services

Description	--Current-- Hrs Billing	Proj-to-Date Hrs Billing	---Budget--- Hrs Billing	% Exp	% Rpt	---Balance--- Hrs Billing
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A Architectural						
03 Schematic Design						
Apple	12	900				
Gray	15	975				
Total Schemati	27	1875	211	13205	300	14400
04 Design Developmt						
Apple	10	750				
Gray	8	520				
Stone	10	500				
MacKenzie	15	750				
Total Design D	43	2520	228	13820	300	14400
Total Architect	70	4395	439	27025	600	28800
Total Labor	70	4395	439	27025	600	28800

Direct Expenses

622.00 Reproductions

629.00 Misc Direct Ex

Total Directs

Total Lab-Direc	70	4395	439	27025	600	28800	94	75	161	1775
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Reimbursable Expenses						
511.00 Structural Con						
AP 00046 05/12/90	44					
Subtotal	44					
512.00 Mechanical Con						
521.00 Travel and Lod						
521.01 Meals						
522.00 Reproductions						
524.00 Long Distance						
529.00 Misc Reimburse						
Total Reimbs.	44		1175		1365	

Task Totals	70	4439	439	28200	600	30165	93	75	161	1965
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Project Progress Report
For the period 05/01/90 - 05/12/90

Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Financial Analysis (Project 09015.00, Task 101)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	
CUR					3363	3363-		Recv:
YTD	22630	2319	24949	24949	20763	4185	17 %	A/R: 24949
JTD	22630	2319	24949	24949	20763	4185	17 %	Unb: EMult: 2.82

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Task 201 Construction Documents

Description	--Current-- Hrs Billing	Proj-to-Date Hrs Billing	---Budget--- Hrs Billing	% Exp	% Rpt	---Balance--- Hrs Billing
A Architectural 05 Const Docs			900	34800		900 34800
Total Labor			900	34800		900 34800
Direct Expenses						
622.00 Reproductions						
623.00 Models/Renderi						
629.00 Misc Direct Ex						
Total Directs						
Total Lab-Direct			900	34800		900 34800

Financial Analysis (Project 09015.00, Task 201)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	
CUR								Recv:
YTD								A/R:
JTD								Unb:

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Task 301 Construction Admin.

Description	--Current-- Hrs Billing	Proj-to-Date Hrs Billing	---Budget--- Hrs Billing	% Exp	% Rpt	---Balance--- Hrs Billing
A Architectural 06 Bid/Negotiate			200	9600		200 9600
07 Const Admin			200	9600		200 9600
Total Architectural			400	19200		400 19200
Total Labor			400	19200		400 19200

Project Progress Report
For the period 05/01/90 - 05/12/90

Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Description	--Current-- Hrs Billing	Proj-to-Date Hrs Billing	---Budget--- Hrs Billing	% Exp	% Rpt	--Balance--- Hrs Billing
Direct Expenses						
515.00 Other Consulta						
621.00 Travel and Lod						
621.01 Meals						
629.00 Misc Direct Ex						
Total Directs						
Total Lab-Direct			400	19200		400 19200

Financial Analysis (Project 09015.00, Task 301)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	Recv:
CUR								A/R:
YTD								Unb:
JTD								

Task 401 Additional Services

Description	--Current-- Hrs Billing	Proj-to-Date Hrs Billing	---Budget--- Hrs Billing	% Exp	% Rpt	--Balance--- Hrs Billing
Architectural						
08 Post Constructn			40	1920		40 1920
09 Supplemental			60	2880		60 2880
Total Architectural			100	4800		100 4800
Total Labor			100	4800		100 4800
Direct Expenses						
629.00 Misc Direct Ex						
Total Directs						
Total Lab-Direct			100	4800		100 4800
Reimbursable Expenses						
611.00 Structural Con				260		260
629.00 Misc Reimburse				130		130
Total Reimbs.				390		390
Task Totals			100	5190		100 5190

Project Progress Report
For the period 05/01/90 - 05/12/90

Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Financial Analysis (Project 09015.00, Task 401)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.			
CUR										Recv:
YTD										A/R:
JTD										Unb:
Project Totals	70	4439	439	28200	2000	89355	32	25	1561	61155

Financial Analysis (Project 09015.00)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.			
CUR					3363	3363-				Recv:
YTD	22630	2319	24949	24949	20763	4185	17 %			A/R: 24949
JTD	22630	2319	24949	24949	20763	4185	17 %			Unb:
										EMult: 2.82

Project Progress Report
Project-to-date thru 05/12/90

Principal: Apple

Project 09015.00 Seaview Wharf Condo Dev.
Type Regular Status Active Rev Rec Y Bud OH Rate
Principal Apple Proj Manager Gray Fee 110000
Client SWC Type of Work Ind Office Dtw

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Task 101 Design Services
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Description --Current-- Proj-to-Date ---Budget--- % % --Balance---
Hrs Cost Hrs Cost Hrs Cost Exp Rpt Hrs Cost

Description	Current Hrs	Current Cost	Proj-to-Date Hrs	Proj-to-Date Cost	Budget Hrs	Budget Cost	% Exp	% Rpt	Balance Hrs	Balance Cost
A Architectural										
03 Schematic Design										
Apple	04		42	1260						
Apple	12	360	12	360						
Gray	04		72	1224						
Gray	15	255	15	255						
Stone	04		40	600						
MacKenzie	04		30	450						
Total Schemati	27	615	211	4149	300	4800	86	75	89	651
04 Design Developmt										
Apple	04		40	1200						
Apple	10	300	10	300						
Gray	04		70	1190						
Gray	8	136	8	136						
Stone	04		40	600						
Stone	10	150	10	150						
MacKenzie	04		35	525						
MacKenzie	15	225	15	225						
Total Design D	43	811	228	4326	300	4800	90	75	72	474
Total Architect	70	1426	439	8475	600	9600	88	75	161	1125
Total Labor	70	1426	439	8475	600	9600	88	75	161	1125
Overhead*		1897		11272		15360	73	75		4088

Direct Expenses

\$22.00 Reproductions										
PR 0007	04/30/90	04/90	5 blueprints				Orig: 02 Copies: 002			
Subtotal			5		50		10	10		45
\$29.00 Misc Direct Ex										
CD 01117	04/21/90	04/90	46 United Parcel				shipping			
Subtotal			46		150		30	30		104
Total Directs			51		200		25	25		149
Total Lab-OH-Di	70	3323	439	19797	600	25160	79	75	161	5363

Reimbursable Expenses

\$11.00 Structural Con										
CN 00030	04/15/90	04/90	155 Consultants				Atlas Structural Eng			
AP 00046	05/12/90		40 Atlas Structural Eng touchup plans							
Subtotal		40	195		200		98	75		5

Project Progress Report
Project-to-date thru 05/12/90

Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Description	---Current---		Proj-to-Date		---Budget---		% Exp	% Rpt	---Balance---	
	Hrs	Cost	Hrs	Cost	Hrs	Cost			Hrs	Cost
A Architectural										
05 Const Docs					900	11600			900	11600
Total Labor					900	11600			900	11600
Overhead*						18560				18560

Direct Expenses										
622.00 Reproductions						200				200
623.00 Models/Renderi						500				500
629.00 Misc Direct Ex						150				150
Total Directs						850				850
Total Lab-OH-Dir					900	31010			900	31010

Financial Analysis (Project 09015.00, Task 201)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit Pct.	
CUR							Recv:
YTD							A/R:
JTD							Unb:

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Task 301 Construction Admin.
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Description	---Current---		Proj-to-Date		---Budget---		% Exp	% Rpt	---Balance---	
	Hrs	Cost	Hrs	Cost	Hrs	Cost			Hrs	Cost
A Architectural										
06 Bid/Negotiate					200	3200			200	3200
07 Const Admin					200	3200			200	3200
Total Architectural					400	6400			400	6400
Total Labor					400	6400			400	6400
Overhead*						10240				10240

Direct Expenses										
615.00 Other Consulta						600				600
621.00 Travel and Lod						450				450
621.01 Meals						50				50
629.00 Misc Direct Ex						100				100
Total Directs						1200				1200
Total Lab-OH-Dir					400	17840			400	17840

Apple and Bartlett
 Project Progress Report
 Project-to-date thru 05/12/90

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Principal: Apple
 Project: 09015.00 Seaview Wharf Condo Dev.

 Financial Analysis (Project 09015.00, Task 301)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	
CUR								Recv:
YTD								A/R:
JTD								Unb:

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Task	401	Additional Services									
Description	--Current--		Proj-to-Date		---Budget---		%	%	--Balance--		
	Hrs	Cost	Hrs	Cost	Hrs	Cost	Exp	Rpt	Hrs	Cost	

A Architectural											
08 Post Constructn					40	640			40	640	
09 Supplemental					60	960			60	960	
Total Architectural					100	1600			100	1600	
Total Labor					100	1600			100	1600	
Overhead*						2560				2560	

Direct Expenses											
629.00 Misc Direct Ex						100				100	
Total Directs						100				100	
Total Lab-OH-Dir					100	4260			100	4260	

Reimbursable Expenses											
511.00 Structural Con						200				200	
529.00 Misc Reimbursa						100				100	
Total Reimbs.						300				300	
Task Totals					100	4560			100	4560	

Financial Analysis (Project 09015.00, Task 401)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	
CUR								Recv:
YTD								A/R:
JTD								Unb:
Project Totals	70	3363	439	20763	2000	79620	26 25	1561 58857

Apple and Bartlett
 Project Progress Report
 Project-to-date thru 05/12/90

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Principal: Apple
 Project: 09015.00 Seaview Wharf Condo Dev.

 Financial Analysis (Project 09015.00)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct:		
CUR					3363	3363-		Recv:	
YTD	22630	2319	24949	24949	20763	4185	17 %	A/R:	24949
JTD	22630	2319	24949	24949	20763	4185	17 %	Unb:	
								EMult:	2.82

Apple and Bartlett
 Project Progress Report
 Project-to-date thru 05/12/90

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Principal: Apple

Project 09015.00	Seaview Wharf Condo Dev.			
Type Regular	Status Active	Rev Rec Y	Bud OH Rate	
Principal Apple	Proj Manager Gray	Fee	110000	
Client SWC	Type of Work Ind	Office	Dtwn	

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Task 101 Design Services

Description	--Current-- Hrs Billing	Proj-to-Date Hrs Billing	---Budget--- Hrs Billing	%	%	--Balance-- Hrs Billing				
				Exp	Rpt					
A Architectural										
03 Schematic Design										
Apple	04		42	3150						
Apple	12	900	12	900						
Gray	04		72	4680						
Gray	15	975	15	975						
Stone	04		40	2000						
MacKenzie	04		30	1500						
Total Schemati	27	1875	211	13205	300	14400	92	75	89	1195
04 Design Developmt										
Apple	04		40	3000						
Apple	10	750	10	750						
Gray	04		70	4550						
Gray	8	520	8	520						
Stone	04		40	2000						
Stone	10	500	10	500						
MacKenzie	04		35	1750						
MacKenzie	15	750	15	750						
Total Design D	43	2520	228	13820	300	14400	96	75	72	580
Total Architect	70	4395	439	27025	600	28800	94	75	161	1775
Total Labor	70	4395	439	27025	600	28800	94	75	161	1775

Direct Expenses

622.00 Reproductions
 PR 00007 04/30/90 04/90 blueprints Orig: 02 Copies: 002
 Subtotal

629.00 Misc Direct Ex
 CD 01117 04/21/90 04/90 United Parcel shipping
 Subtotal

Total Directs

Total Lab-Direc	70	4395	439	27025	600	28800	94	75	161	1775
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Reimbursable Expenses

511.00 Structural Con
 CN 00030 04/15/90 04/90 171 Consultants Atlas Structural Eng
 AP 00046 05/12/90 44 44 Atlas Structural Eng touchup plans
 Subtotal 44 215 260 83 75 46

512.00 Mechanical Con
 CN 00040 04/30/90 04/90 231 Consultants The Sullivan Group

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 Project Progress Report
 Project-to-date thru 05/12/90

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Principal: Apple
 Project: 09015.00 Seaview Wharf Condo Dev.

Description	--Current-- Hrs Billing	Proj-to-Date Hrs Billing	---Budget--- Hrs Billing	% Exp	% Rpt	--Balance--- Hrs Billing
521.00 Travel and Lod						
EX 00001 04/10/90	04/90		21 Apple, William			cab to airport 04/07
EX 00001 04/10/90	04/90		156 Apple, William			hotel 04/08
EX 00001 04/10/90	04/90		8 Apple, William			cab to am mtg 04/08
EX 00001 04/10/90	04/90		10 Apple, William			cab to airport 04/08
Subtotal			195	195	100 100	
521.01 Meals						
EX 00001 04/10/90	04/90		105 Apple, William			dinner w/ MKL 04/07
EX 00001 04/10/90	04/90		31 Apple, William			lunch w/client 04/08
EX 00101 04/21/90	04/90		83 Gray, Brenda			lunch w/client 04/21
Subtotal			220	130	169 100	90-
522.00 Reproductions						
AP 00037 04/30/90	04/90		62 Speedy Blueprint			schematic
AP 00037 04/30/90	04/90		87 Speedy Blueprint			primary design
AP 00037 04/30/90	04/90		54 Speedy Blueprint			alt design
PR 00007 04/30/90	04/90		49 blueprints			Orig: 05 Copies: 015
PR 00008 04/30/90	04/90		2 Xerox copies			Orig: 08 Copies: 024
Subtotal			253	390	65 67	137
524.00 Long Distance						
AP 00036 04/17/90	04/90		8 New England Telephone long dist			04/17
AP 00036 04/17/90	04/90		7 New England Telephone long dist			04/17
AP 00036 04/17/90	04/90		3 New England Telephone l.d. FAX			04/17
AP 00036 04/17/90	04/90		28 New England Telephone conf call			04/19
Subtotal			46	65	71 75	19
529.00 Misc Reimbursa						
AP 00038 04/14/90	04/90		15 Federal Express			overnight ship
Subtotal			15	65	23 20	50
Total Reimbs.	44	1175		1365	86 81	190

Task Totals 70 4439 439 28200 600 30165 93 75 161 1965

Financial Analysis (Project 09015.00, Task 101)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	Recv:
CUR					3363	3363-		
YTD	22630	2319	24949	24949	20763	4185	17 %	A/R: 24949
JTD	22630	2319	24949	24949	20763	4185	17 %	Unb: EMult: 2.82

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 Task 201 Construction Documents
 =====

Description	--Current-- Hrs Billing	Proj-to-Date Hrs Billing	---Budget--- Hrs Billing	% Exp	% Rpt	--Balance--- Hrs Billing
Architectural 05 Const Docs			900	34800		900 34800

Project Progress Report
Project-to-date thru 05/12/90

Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Description	--Current--		Proj-to-Date		---Budget---		% Exp	% Rpt	--Balance--	
	Hrs	Billing	Hrs	Billing	Hrs	Billing			Hrs	Billing
Total Labor			900	34800					900	34800

Direct Expenses										
22.00 Reproductions										
23.00 Models/Renderi										
29.00 Misc Direct Ex										
Total Directs										
Total Lab-Direct			900	34800					900	34800

Financial Analysis (Project 09015.00, Task 201)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	Recv:
CUR								A/R:
YTD								Unb:
JTD								

Task 301 Construction Admin.

Description	--Current--		Proj-to-Date		---Budget---		% Exp	% Rpt	--Balance--	
	Hrs	Billing	Hrs	Billing	Hrs	Billing			Hrs	Billing
Architectural										
06 Bid/Negotiate			200	9600					200	9600
07 Const Admin			200	9600					200	9600
Total Architectural			400	19200					400	19200
Total Labor			400	19200					400	19200

Direct Expenses										
15.00 Other Consulta										
21.00 Travel and Lod										
21.01 Meals										
29.00 Misc Direct Ex										
Total Directs										
Total Lab-Direct			400	19200					400	19200

Financial Analysis (Project 09015.00, Task 301)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	Recv:
CUR								A/R:
YTD								Unb:
JTD								

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 Project Progress Report
 Project-to-date thru 05/12/90

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Principal: Apple
 Project: 09015.00 Seaview Wharf Condo Dev.

Description	--Current--		Proj-to-Date		---Budget---		% Exp	% Rpt	--Balance--	
	Hrs	Billing	Hrs	Billing	Hrs	Billing			Hrs	Billing
Total Labor			900	34800					900	34800

Direct Expenses										
622.00 Reproductions										
623.00 Models/Renderi										
629.00 Misc Direct Ex										
Total Directs										
Total Lab-Direct			900	34800					900	34800

Financial Analysis (Project 09015.00, Task 201)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	
CUR								Recv:
YTD								A/R:
JTD								Unb:

Task 301 Construction Admin.

Description	--Current--		Proj-to-Date		---Budget---		% Exp	% Rpt	--Balance--	
	Hrs	Billing	Hrs	Billing	Hrs	Billing			Hrs	Billing
Architectural										
06 Bid/Negotiate			200	9600					200	9600
07 Const Admin			200	9600					200	9600
Total Architectural			400	19200					400	19200
Total Labor			400	19200					400	19200

Direct Expenses										
615.00 Other Consulta										
621.00 Travel and Lod										
621.01 Meals										
629.00 Misc Direct Ex										
Total Directs										
Total Lab-Direct			400	19200					400	19200

Financial Analysis (Project 09015.00, Task 301)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	
CUR								Recv:
YTD								A/R:
JTD								Unb:

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 Project Progress Report
 Project-to-date thru 05/12/90

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Principal: Apple
 Project: 09015.00 Seaview Wharf Condo Dev.

Task	401	Additional Services							
Description	--Current-- Hrs Billing	Proj-to-Date Hrs Billing	---Budget--- Hrs Billing	% Exp	% Rpt	--Balance-- Hrs Billing			
A Architectural									
08 Post Constructn			40	1920		40	1920		
09 Supplemental			60	2880		60	2880		
Total Architectural			100	4800		100	4800		
Total Labor			100	4800		100	4800		
Direct Expenses									
629.00 Misc Direct Ex									
Total Directs									
Total Lab-Direct			100	4800		100	4800		
Reimbursable Expenses									
511.00 Structural Con				260			260		
529.00 Misc Reimbursa				130			130		
Total Reimbs.				390			390		
Task Totals			100	5190		100	5190		

Financial Analysis (Project 09015.00, Task 401)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	Recv:	A/R:	Unb:
CUR										
YTD										
JTD										
Project Totals	70	4439	439	28200	2000	89355	32 25	1561	61155	

Financial Analysis (Project 09015.00)

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	Recv:	A/R:	Unb:	EMult:
CUR					3363	3363-					
YTD	22630	2319	24949	24949	20763	4185	17 %		24949		
JTD	22630	2319	24949	24949	20763	4185	17 %				2.82

Project Detail Report
For the period 05/01/90 - 05/12/90

Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Type Regular	Status Active	Rev Rec Y	Bud OH Rate
Principal Apple	Proj Manager Gray	Fee	110000
Client SWC	Type of Work Ind	Office	Dtwn

=====								
Task	101	Design Services						
			Hours		Cost Amounts			
Description		Reg	Ovt	Total	Reg	Ovt	Total	
00001 Apple, William	05/12	8.0	4.0	12.0	240.00	120.00	360.00	
00001 Apple, William	05/12	10.0		10.0	300.00		300.00	
Subtotal		18.0	4.0	22.0	540.00	120.00	660.00	
00101 Gray, Brenda	05/12	15.0		15.0	255.00		255.00	
00101 Gray, Brenda	05/12	8.0		8.0	136.00		136.00	
Subtotal		23.0		23.0	391.00		391.00	
00201 Stone, Richard	05/12	10.0		10.0	150.00		150.00	
00203 MacKenzie, Jona	05/12	12.0	3.0	15.0	180.00	45.00	225.00	
Total Labor		63.0	7.0	70.0	1261.00	165.00	1426.00	
Overhead*							1896.58	

Reimbursable Expenses								
511.00 Structural Consultant								
AP 00046 05/12/90 Atlas Structural Eng touchup plans								
Total Reimbs.								
				70.0				40.00
				70.0				40.00
Task Totals				70.0				3362.58
Project Totals				70.0				3362.58

Apple and Bartlett

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Project Detail Report
For the period 05/01/90 - 05/12/90

Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Type Regular	Status Active	Rev Rec Y	Bud OH Rate
Principal Apple	Proj Manager Gray	Fee	110000
Client SWC	Type of Work Ind	Office	Dtwn

=====						
Task	101	Design Services			=====	
Description		Reg	Hours		Total	Billing Amount
			Ovt			
00001 Apple, William	05/12	8.0	4.0		12.0	900.00
00001 Apple, William	05/12	10.0			10.0	750.00
Subtotal		18.0	4.0		22.0	1650.00
00101 Gray, Brenda	05/12	15.0			15.0	975.00
00101 Gray, Brenda	05/12	8.0			8.0	520.00
Subtotal		23.0			23.0	1495.00
00201 Stone, Richard	05/12	10.0			10.0	500.00
00203 MacKenzie, Jona	05/12	12.0	3.0		15.0	750.00
Total Labor		63.0	7.0		70.0	4395.00

Reimbursable Expenses						
511.00 Structural Consultant						
AP 00046 05/12/90 Atlas Structural Eng touchup plans						
Total Reimbs.						44.00
						44.00
Task Totals					70.0	
Project Totals					70.0	4439.00
						4439.00

Apple and Bartlett
 Project Detail Report
 Project-to-date thru 05/12/90

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Principal: Apple
 Project: 09015.00 Seaview Wharf Condo Dev.

Type Regular	Status Active	Rev Rec Y	Bud OH Rate		
Principal	Apple	Proj Manager Gray	Fee	110000	
Client	SWC	Type of Work Ind	Office	Dtwn	

=====
 Task 101 Design Services
 =====

Description			Hours			Cost Amounts		
			Reg	Ovt	Total	Reg	Ovt	Total
00001 Apple, William	04/90		40.0	2.0	42.0	1200.00	60.00	1260.00
00001 Apple, William	04/90		40.0		40.0	1200.00		1200.00
00001 Apple, William	05/12		8.0	4.0	12.0	240.00	120.00	360.00
00001 Apple, William	05/12		10.0		10.0	300.00		300.00
Subtotal			98.0	6.0	104.0	2940.00	180.00	3120.00
00101 Gray, Brenda	04/90		70.0	2.0	72.0	1190.00	34.00	1224.00
00101 Gray, Brenda	04/90		60.0	10.0	70.0	1020.00	170.00	1190.00
00101 Gray, Brenda	05/12		15.0		15.0	255.00		255.00
00101 Gray, Brenda	05/12		8.0		8.0	136.00		136.00
Subtotal			153.0	12.0	165.0	2601.00	204.00	2805.00
00201 Stone, Richard	04/90		40.0		40.0	600.00		600.00
00201 Stone, Richard	04/90		40.0		40.0	600.00		600.00
00201 Stone, Richard	05/12		10.0		10.0	150.00		150.00
Subtotal			90.0		90.0	1350.00		1350.00
00203 MacKenzie, Jona	04/90		19.0	11.0	30.0	285.00	165.00	450.00
00203 MacKenzie, Jona	04/90		24.0	11.0	35.0	360.00	165.00	525.00
00203 MacKenzie, Jona	05/12		12.0	3.0	15.0	180.00	45.00	225.00
Subtotal			55.0	25.0	80.0	825.00	375.00	1200.00

Total Labor 396.0 43.0 439.0 7716.00 759.00 8475.00

Overhead* 11271.75

Direct Expenses			
622.00 Reproductions			
PR 00007 04/30/90	04/90	blueprints	Orig: 02 Copies: 002 5.00
629.00 Misc Direct Expenses			
CD 01117 04/21/90	04/90	United Parcel shipping	45.60
Total Directs			50.60

Total Lab-OH-Dir 439.0 19797.35

Reimbursable Expenses			
511.00 Structural Consultant			
CN 00030 04/15/90	04/90	Consultants	Atlas Structural Eng 155.00
AP 00046 05/12/90		Atlas Structural Eng touchup plans	40.00
Account Subtotal			195.00
512.00 Mechanical Consultant			
CN 00040 04/30/90	04/90	Consultants	The Sullivan Group 210.00

Apple and Bartlett
 Project Detail Report
 Project-to-date thru 05/12/90

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Principal: Apple
 Project: 09015.00 Seaview Wharf Condo Dev.

Description	Cost Amount
521.00 Travel and Lodging	
EX 00001 04/10/90 04/90 Apple, William cab to airport 04/07	16.00
EX 00001 04/10/90 04/90 Apple, William hotel 04/08	120.00
EX 00001 04/10/90 04/90 Apple, William cab to am mtg 04/08	6.00
EX 00001 04/10/90 04/90 Apple, William cab to airport 04/08	8.00
Account Subtotal	150.00
521.01 Meals	
EX 00001 04/10/90 04/90 Apple, William dinner w/ MKL 04/07	81.00
EX 00001 04/10/90 04/90 Apple, William lunch w/client 04/08	24.00
EX 00101 04/21/90 04/90 Gray, Brenda lunch w/client 04/21	64.20
Account Subtotal	169.20
522.00 Reproductions	
AP 00037 04/30/90 04/90 Speedy Blueprint schematic	47.31
AP 00037 04/30/90 04/90 Speedy Blueprint primary design	67.23
AP 00037 04/30/90 04/90 Speedy Blueprint alt design	41.23
PR 00007 04/30/90 04/90 blueprints Orig: 05 Copies: 015	37.50
PR 00008 04/30/90 04/90 Xerox copies Orig: 08 Copies: 024	1.68
Account Subtotal	194.95
524.00 Long Distance Telephone	
AP 00036 04/17/90 04/90 New England Telephon long dist 04/17	6.51
AP 00036 04/17/90 04/90 New England Telephon long dist 04/17	5.15
AP 00036 04/17/90 04/90 New England Telephon l.d. FAX 04/17	2.13
AP 00036 04/17/90 04/90 New England Telephon conf call 04/19	21.57
Account Subtotal	35.36
529.00 Misc Reimbursable Expens	
AP 00038 04/14/90 04/90 Federal Express overnight ship	11.50
Total Reimbs.	966.01
 Task Totals	 439.0
Project Totals	20763.36
	439.0
	20763.36

Apple and Bartlett
 Project Detail Report
 Project-to-date thru 05/12/90

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Principal: Apple
 Project: 09015.00 Seaview Wharf Condo Dev.

Type Regular	Status Active	Rev Rec Y	Bud OH Rate
Principal Apple	Proj Manager Gray	Fee	110000
Client SWC	Type of Work Ind	Office	Dtwn

Task	101	Design Services				Billing
Description	Reg	Hours	Ovt	Total		
00001 Apple, William	04/90	40.0	2.0	42.0	3150.00	
00001 Apple, William	04/90	40.0		40.0	3000.00	
00001 Apple, William	05/12	8.0	4.0	12.0	900.00	
00001 Apple, William	05/12	10.0		10.0	750.00	
Subtotal		98.0	6.0	104.0	7800.00	
00101 Gray, Brenda	04/90	70.0	2.0	72.0	4680.00	
00101 Gray, Brenda	04/90	60.0	10.0	70.0	4550.00	
00101 Gray, Brenda	05/12	15.0		15.0	975.00	
00101 Gray, Brenda	05/12	8.0		8.0	520.00	
Subtotal		153.0	12.0	165.0	10725.00	
00201 Stone, Richard	04/90	40.0		40.0	2000.00	
00201 Stone, Richard	04/90	40.0		40.0	2000.00	
00201 Stone, Richard	05/12	10.0		10.0	500.00	
Subtotal		90.0		90.0	4500.00	
00203 MacKenzie, Jona	04/90	19.0	11.0	30.0	1500.00	
00203 MacKenzie, Jona	04/90	24.0	11.0	35.0	1750.00	
00203 MacKenzie, Jona	05/12	12.0	3.0	15.0	750.00	
Subtotal		55.0	25.0	80.0	4000.00	
Total Labor		396.0	43.0	439.0	27025.00	

Direct Expenses						
622.00 Reproductions						
PR 00007 04/30/90	04/90	blueprints			Orig: 02 Copies: 002	
629.00 Misc Direct Expenses						
CD 01117 04/21/90	04/90	United Parcel			shipping	
Total Directs						

Total Lab-Direct 439.0 27025.00

Reimbursable Expenses						
511.00 Structural Consultant						
CN 00030 04/15/90	04/90	Consultants			Atlas Structural Eng	170.50
AP 00046 05/12/90		Atlas Structural Eng			touchup plans	44.00
Account Subtotal						214.50
512.00 Mechanical Consultant						
CN 00040 04/30/90	04/90	Consultants			The Sullivan Group	231.00
521.00 Travel and Lodging						
EX 00001 04/10/90	04/90	Apple, William			cab to airport 04/07	20.80

Apple and Bartlett

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Project Detail Report
Project-to-date thru 05/12/90

Principal: Apple
Project: 09015.00 Seaview Wharf Condo Dev.

Description				Billing Amount
EX 00001 04/10/90	04/90 Apple, William	hotel	04/08	156.00
EX 00001 04/10/90	04/90 Apple, William	cab to am mtg	04/08	7.80
EX 00001 04/10/90	04/90 Apple, William	cab to airport	04/08	10.40
Account Subtotal				195.00
521.01 Meals				
EX 00001 04/10/90	04/90 Apple, William	dinner w/ MKL	04/07	105.30
EX 00001 04/10/90	04/90 Apple, William	lunch w/client	04/08	31.20
EX 00101 04/21/90	04/90 Gray, Brenda	lunch w/client	04/21	83.46
Account Subtotal				219.96
522.00 Reproductions				
AP 00037 04/30/90	04/90 Speedy Blueprint	schematic		61.50
AP 00037 04/30/90	04/90 Speedy Blueprint	primary design		87.40
AP 00037 04/30/90	04/90 Speedy Blueprint	alt design		53.60
PR 00007 04/30/90	04/90 blueprints	Orig: 05 Copies: 015		48.75
PR 00008 04/30/90	04/90 Xerox copies	Orig: 08 Copies: 024		2.18
Account Subtotal				253.43
524.00 Long Distance Telephone				
AP 00036 04/17/90	04/90 New England Telephon	long dist	04/17	8.46
AP 00036 04/17/90	04/90 New England Telephon	long dist	04/17	6.70
AP 00036 04/17/90	04/90 New England Telephon	l.d. FAX	04/17	2.77
AP 00036 04/17/90	04/90 New England Telephon	conf call	04/19	28.04
Account Subtotal				45.97
529.00 Misc Reimbursable Expens				
AP 00038 04/14/90	04/90 Federal Express	overnight ship		14.95
Total Reimbs.				1174.81
Task Totals		439.0		28199.81
Project Totals		439.0		28199.81

Apple and Bartlett

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Project Summary Report
For the period 05/01/90 - 05/12/90

	---Current---		Proj-to-date		----Budget----		% Exp	% Rpt
	Hrs	Cost	Hrs	Cost	Hrs	Cost		
Principal: Apple								
00008.00 Accounting								
Labor	8	88	152	1746				
Expense				274				
Total	8	88	152	2020				
000P5.00 Business Development								
Labor			69	1902				
Expense				2371				
Total			69	4273				
000P5.01 DAK Office Proposal								
Labor			60	1498				
Expense				1795				
Total			60	3294				
** 000P5 Subtotal								
Labor			130	3400				
Expense				4166				
Total			130	7566				
08905.00 City Hall								
Labor	104	1790	859	15209	2597	45006	34	32
Overhead*		2381		20011		72010	28	32
Directs		650		16130		18200	89	76
Reimbs.		823		9143		15900	58	56
Total	104	5643	859	60493	2597	151116	40	40
09001.00 University Library								
Labor	36	615	333	5693	1418	23845	24	19
Overhead*		818		7572		38152	20	19
Directs				5538		4500	123	100
Reimbs.		244		3730		6350	59	39
Total	36	1677	333	22533	1418	72847	31	26
09004.00 GNH Music Center								
Labor	31	510	131	2475	386	6880	36	29
Overhead*		678		3292		11008	30	29
Directs				1809		1800	100	65
Reimbs.		80		1264		2050	62	61
Total	31	1268	131	8839	386	21738	41	35
09007.00 CAS Residence								
Labor	27	270	179	2570	399	8305	31	27
Overhead*		359		3418		13288	26	27
Directs		180		1206		1700	71	53
Reimbs.		235		4447		6600	67	62
Total	27	1044	179	11641	399	29893	39	36

Apple and Bartlett

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Project Summary Report
For the period 05/01/90 - 05/12/90

	---Current---		Proj-to-date		----Budget----		%	%
	Hrs	Cost	Hrs	Cost	Hrs	Cost	Exp	Rpt
09009.00 ABC Plaza Study								
Labor			281	4409	1195	20663	21	24
Overhead*				5864		33061	18	24
Directs				5457		14300	38	41
Reimbs.				24				
Total			281	15754	1195	68024	23	27
09013.00 West Glen Elem Addition								
Labor	5	85	220	3752	804	13818	27	27
Overhead*		113		4990		22109	23	27
Directs				125				
Reimbs.				6486		4525	143	85
Total	5	198	220	15352	804	40452	38	33
09015.00 Seaview Wharf Condo Dev.								
Task 101 Design Services								
Labor	70	1426	439	8475	600	9600	88	75
Overhead*		1897		11272		15360	73	75
Directs				51		200	25	25
Reimbs.		40		966		1050	92	81
Total	70	3363	439	20763	600	26210	79	75
Task 201 Construction Documents								
Labor					900	11600		
Overhead*						18560		
Directs						850		
Total					900	31010		
Task 301 Construction Admin.								
Labor					400	6400		
Overhead*						10240		
Directs						1200		
Total					400	17840		
Task 401 Additional Services								
Labor					100	1600		
Overhead*						2560		
Directs						100		
Reimbs.						300		
Total					100	4560		
project Total	70	3363	439	20763	2000	79620	26	25

Project Summary Report
For the period 05/01/90 - 05/12/90

	---Current---		Proj-to-date		----Budget----		%	%
	Hrs	Cost	Hrs	Cost	Hrs	Cost	Exp	Rpt
09017.00 Talbots-Region								
Task 00A Architectural								
Labor								
Overhead*								
Total								
Task 00E Engineering								
Labor								
Overhead*								
Total								
Project Total								
Subtotal for Apple								
Labor	281	4784	2723	47729	8799	147717	32	26
Overhead*		6246		56417		236347	24	26
Directs		830		34755		42850	81	62
Reimbs.		1421		26060		36775	71	58
Total	281	13281	2723	164961	8799	463689	36	32
Final Totals (Regular Projects)								
Labor	273	4696	2441	42582	8799	147717	29	26
Overhead*		6246		56417		236347	24	26
Directs		830		30315		42850	71	62
Reimbs.		1421		26060		36775	71	58
Total	273	13193	2441	155375	8799	463689	34	32
Final Totals (Overhead Projects)								
Labor	8	88	282	5147				
Expense				4440				
Total	8	88	282	9587				

Apple and Bartlett

Project Summary Report
For the period 05/01/90 - 05/12/90

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	---Current---		Proj-to-date		----Budget----		% Exp	% Rpt
	Hrs	Billing	Hrs	Billing	Hrs	Billing		
Principal: Apple								
00008.00 Accounting								
Labor	8		152					
000P5.00 Business Development								
Labor			69					
000P5.01 DAK Office Proposal								
Labor			60					
** 000P5 Subtotal								
Labor			130					
08905.00 City Hall								
Labor	104	5565	859	44719	2597	135018	33	32
Directs		650		650				
Reimbs.		847		10975		20670	53	56
Total	104	7062	859	56344	2597	155688	36	35
09001.00 University Library								
Labor	36	1953	333	16776	1418	71535	23	19
Reimbs.		285		4522		8255	55	39
Total	36	2238	333	21298	1418	79790	27	21
09004.00 GNH Music Center								
Labor	31		131		386	20640		29
Reimbs.		88		1562		2665	59	61
Total	31	88	131	1562	386	23305	7	33
09007.00 CAS Residence								
Labor	27	900	179	7596	399	24915	30	27
Directs		180		180				
Reimbs.		282		5534		8580	64	62
Total	27	1362	179	13310	399	33495	40	36
09009.00 ABC Plaza Study								
Labor			281	13091	1195	61989	21	24
Reimbs.				30				
Total			281	13121	1195	61989	21	24
09013.00 West Glen Elem Addition								
Labor	5	325	220	10850	804	41454	26	27
Reimbs.				7781		5883	132	85
Total	5	325	220	18631	804	47337	39	34

Apple and Bartlett

Project Summary Report
For the period 05/01/90 - 05/12/90

	---Current---		Proj-to-date		----Budget----		%	%
	Hrs	Billing	Hrs	Billing	Hrs	Billing	Exp	Rpt
09015.00 Seaview Wharf Condo Dev.								
Task 101 Design Services								
Labor	70	4395	439	27025	600	28800	94	75
Reimbs.		44		1175		1365	86	81
Total	70	4439	439	28200	600	30165	93	75
Task 201 Construction Documents								
Labor					900	34800		
Task 301 Construction Admin.								
Labor					400	19200		
Task 401 Additional Services								
Labor					100	4800		
Reimbs.						390		
Total					100	5190		
Project Total	70	4439	439	28200	2000	89355	32	25
09017.00 Talbots-Region								
Task 00A Architectural								
Labor								
Task 00E Engineering								
Labor								
Project Total								
Subtotal for Apple								
Labor	281	13138	2723	120058	8799	443151	27	26
Directs		830		830				
Reimbs.		1547		31578		47808	66	58
Total	281	15514	2723	152466	8799	490958	31	29
Final Totals (Regular Projects)								
Labor	273	13138	2441	120058	8799	443151	27	26
Directs		830		830				
Reimbs.		1547		31578		47808	66	58
Total	273	15514	2441	152466	8799	490958	31	29

Project Budgets and Percent Completes

Project: 09015.00 Seaview Wharf Condo Dev.

----- Budget Summary -----

Fee	110000
Labor Budget	(29200)
Overhead (160%)	(46720)
Direct Consult.	(600)
Other Dir. Exp.	(1750)
	=====
Profit on svcs.	31730
Profit Pct.	29%
Reimb. Consult.	600
Other Reimb.	750
Total Hours	2000
Overall Pct. Compl.	25%

----- Labor Cost Budget -----

Task Code	Description	Pct	Hours	Amount
101 A03	Architectural Schematic Design	75	300.0	4800.00
101 A04	Architectural Design Developmt	75	300.0	4800.00
201 A05	Architectural Const Docs		900.0	11600.00
301 A06	Architectural Bid/Negotiate		200.0	3200.00
301 A07	Architectural Const Admin		200.0	3200.00
401 A08	Architectural Post Constructn		40.0	640.00
401 A09	Architectural Supplemental		60.0	960.00

----- Expense Cost Budget -----

Task	Acct	Account Name	Pct	Amount
101	511.00	Structural Consultant	75	200.00
101	512.00	Mechanical Consultant	100	200.00
101	521.00	Travel and Lodging	100	150.00
101	521.01	Meals	100	100.00
101	522.00	Reproductions	67	300.00
101	524.00	Long Distance Telephone	75	50.00
101	529.00	Misc Reimbursable Expens	20	50.00
101	622.00	Reproductions	10	50.00
101	629.00	Misc Direct Expenses	30	150.00
201	622.00	Reproductions		200.00
201	623.00	Models/Renderings/Photos		500.00
201	629.00	Misc Direct Expenses		150.00
301	615.00	Other Consultants		600.00
301	621.00	Travel and Lodging		450.00
301	621.01	Meals		50.00
301	629.00	Misc Direct Expenses		100.00
401	511.00	Structural Consultant		200.00
401	529.00	Misc Reimbursable Expens		100.00
401	629.00	Misc Direct Expenses		100.00

*** End of Report ***

Project Budgets and Percent Completes

Project: 09015.00 Seaview Wharf Condo Dev.

Budget Summary -----

Fee	110000
Labor Budget	87600
Direct Consult.	
Other Dir. Exp.	

Total Lab-Direct	87600
Reimb. Consult.	780
Other Reimb.	975
=====	
Total Budget	89355
Total Hours	2000
Overall Pct. Compl.	25%

----- Labor Billing Budget -----

Task Code	Description	Pct	Hours	Amount
01 A03	Architectural Schematic Design	75	300.0	14400.00
01 A04	Architectural Design Developmt	75	300.0	14400.00
201 A05	Architectural Const Docs		900.0	34800.00
01 A06	Architectural Bid/Negotiate		200.0	9600.00
01 A07	Architectural Const Admin		200.0	9600.00
01 A08	Architectural Post Constructn		40.0	1920.00
01 A09	Architectural Supplemental		60.0	2880.00

----- Expense Billing Budget -----

Task	Acct	Account Name	Pct	Amount
01	511.00	Structural Consultant	75	260.00
01	512.00	Mechanical Consultant	100	260.00
01	521.00	Travel and Lodging	100	195.00
01	521.01	Meals	100	130.00
01	522.00	Reproductions	67	390.00
01	524.00	Long Distance Telephone	75	65.00
01	529.00	Misc Reimbursable Expens	20	65.00
01	622.00	Reproductions	10	
01	629.00	Misc Direct Expenses	30	
01	622.00	Reproductions		
01	623.00	Models/Renderings/Photos		
01	629.00	Misc Direct Expenses		
01	615.00	Other Consultants		
01	621.00	Travel and Lodging		
01	621.01	Meals		
01	629.00	Misc Direct Expenses		
01	511.00	Structural Consultant		260.00
01	529.00	Misc Reimbursable Expens		130.00
01	629.00	Misc Direct Expenses		

*** End of Report ***

Apple and Bartlett

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Time Analysis Report
For the period 05/01/90 - 05/12/90

--Hours Worked--		--Ratios--			----- Indirect Time (Hours) -----									
Total	Dir.	Ind.	A	B	C	Vac	Sick	Hol	B.Dv	Civc	Mgmt	Actg	P.Dv	Other
00001 Apple, William														
C	89	82	7	92	92	55						4		3
Y	840	552	288	66	68	55	16		16	3		23		229
00002 Bartlett, James														
C	110	103	7	94	94	65						4		3
Y	837	539	299	64	68	65	27		16	12		31		214
00101 Gray, Brenda														
C	86	62	24	72	100	85	24							
Y	821	685	137	83	94	85	32	37	24	3				42
00201 Stone, Richard														
C	101	101		100	100	95								
Y	823	699	124	85	91	95	8	32	16	8				60
00202 Lambert, Roberta														
C	114	114		100	100	95								
Y	841	763	78	91	97	95	32	8	16					22
00203 MacKenzie, Jonathan														
C	108	108		100	100	95								
Y	302	278	24	92	92	95								24
00301 Spencer, Wilbur														
C	80	64	16	80	100	95		16						
Y	809	730	78	90	99	95	8	45	16					9
00302 Davisson, Emily														
C	66	66		100	100	95								
Y	192	165	27	86	86	95								27
00901 Smithfield, Joanne														
C	80		80			5						8		72
Y	789	9	780	1	1	5	24	18	16			37		685
Firmwide Totals														
C	833	700	134	84	88	76	24	16				8	8	78
Y	6254	4419	1835	71	76	76	147	140	120	26		54	37	1313

Explanation of ratios:

- A = Total Direct/Total Hours Worked
- B = Total Direct/(Total worked - Benefit hours)
- C = Target Ratio

Office Earnings Report
For the period 05/01/90 - 05/31/90

	Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.	
Principal: Apple								
08905.00 City Hall								
CUR					5643	5643-		Fee: 175000
YTD	42849	8842	51691	58906	60493	1587-	3-%	Recv: 34484
JTD	42849	8842	51691	58906	60493	1587-	3-%	A/R: 17207
								Unb: 7215
								EMult: 2.21
								Rev Rec: Y
09001.00 University Library								
CUR					1677	1677-		Fee: 71000
YTD	16315	4041	20356	20356	22533	2177-	11-%	Recv: 10462
JTD	16315	4041	20356	20356	22533	2177-	11-%	A/R: 9893
								Unb:
								EMult: 1.95
								Rev Rec: Y
09004.00 GNH Music Center								
CUR					1268	1268-		Fee: 22000
YTD	3434	1337	4771	7411	8839	1428-	19-%	Recv: 4151
JTD	3434	1337	4771	7411	8839	1428-	19-%	A/R: 620
								Unb: 2640
								EMult: 1.75
								Rev Rec: Y
09007.00 CAS Residence								
CUR					1044	1044-		Fee: 27300
YTD	6969	5402	12370	12370	11641	729	6 %	Recv: 11488
JTD	6969	5402	12370	12370	11641	729	6 %	A/R: 883
								Unb:
								EMult: 2.61
								Rev Rec: Y
09013.00 West Glen Elem Addition								
CUR					198	198-		Fee: 41000
YTD	14363	6486	20848	20848	15352	5496	26 %	Recv: 19304
JTD	14363	6486	20848	20848	15352	5496	26 %	A/R: 1544
								Unb:
								EMult: 3.79
								Rev Rec: Y
09015.00 Seaview Wharf Condo Dev.								
Task 101 Design Services								
CUR					3363	3363-		Recv:
YTD	22630	2319	24949	24949	20763	4185	17 %	A/R: 24949
JTD	22630	2319	24949	24949	20763	4185	17 %	Unb:
								EMult: 2.82
Project Totals								
CUR					3363	3363-		Fee: 110000
YTD	22630	2319	24949	24949	20763	4185	17 %	Recv:
JTD	22630	2319	24949	24949	20763	4185	17 %	A/R: 24949
								Unb:
								EMult: 2.82
								Rev Rec: Y

Apple and Bartlett

Office Earnings Report
For the period 05/01/90 - 05/31/90

Fees Billed	Other Billed	Total Billed	Revenue	Spent *	Profit	Profit Pct.
-------------	--------------	--------------	---------	---------	--------	-------------

Subtotal for Apple

CUR				13193	13193-		Fee: 446300
YTD	106558	28427	134985	144840	139621	5219	Recv: 79888
JTD	106558	28427	134985	144840	139621	5219	4 % A/R: 55097
							4 % Unb: 9855
							EMult: 2.46

Final totals

CUR				13193	13193-		Fee: 446300
YTD	106558	28427	134985	144840	139621	5219	Recv: 79888
JTD	106558	28427	134985	144840	139621	5219	4 % A/R: 55097
							4 % Unb: 9855
							EMult: 2.46

The Excel / Windows Module

The Excel / Windows Module

What is Excel / Windows?

Microsoft Excel is a powerful spreadsheet software which uses the Windows program to provide the user with a user-friendly interface

Excel provides the automated business tools needed for data analysis, list keeping, calculations and as well as presentation tools needed for reporting

Spreadsheets (Worksheets):

Store, manipulate, calculate and analyze data such as numbers, text and formulas on a worksheet. Charts, graphic elements, text boxes and tables may be added to the worksheet.

Databases:

Conveniently sort, search and manage a large amount of information using standard database operations.

Charts:

Present worksheet data visually in chart form. In addition to choosing the many built-in variations of two-dimensional and three-dimensional chart types, the program may be customized to accept any chart format.

Presentations:

Cell types, drawing tools, chart galleries and table formats may be used to create high quality presentations.

Macro:

Automate frequently performed tasks, specialized calculations and customize by creating and storing macro functions.

The Input

The Excel module uses for input:

Formatted spreadsheet data from the Micro/ CFMS Module:

Data that is used by the Micro/ CFMS module in the preparation of reports may be extracted into a spreadsheet environment using the interface.

User defined budget calculations and cost estimates:

These include various cost estimate worksheets used by governmental agencies like the General Services Administrations and The Department of Defence.

These may also include fee analysis worksheets used for estimating the fees for any project based on the square footage.

The Processing

The data, when it is extracted into the spreadsheet environment lends itself to being worked on for the performing of various analysis functions.

A well-planned and documented worksheet model helps the user analyze and present data effectively. Excel provides a number of tools to conduct a special kind of analysis called the "what-if" analysis. With what-if analysis, different sets of input data in may be used in worksheet formulas.

Scenario Manager:

Using the scenario manager different scenarios may be recorded - various sets of input values that may be substituted in the worksheet model

Summary reports of the results of different scenarios may be created and saved.

What-If Add-In Macro:

Using the What-if add-in macro, results of many combinations of input values may be quickly calculated and displayed. The scenario manager may then be used to name and save the input values as scenarios.

Goal-Seeking:

If the result that a formula should be produce is known, then the goal-seeking function may be used to vary a value that the formula depends on until the result is achieved.

Microsoft Excel Solver:

Using the solver, solutions to problems that have multiple variables and constraints may be found.

Data Table:

A data-table may be used to substitute values for one or two variables in a worksheet formula.

The Workbooks

Organizing the Excel documents into workbooks makes it easy to manage the document files and keep related information together. By opening or closing a single workbook, all documents needed for a specific task may be opened or closed.

The following workbooks have been used in this report:

Employee Workbook

Office Earnings Workbook

Fee Proposal Workbook

Labor Workbook

Project Workbook

The Output

The various outputs from the Excel Module consists of:

Employee Reports:

Employee Utilization - Current

Employee Utilization - Year-To-Date

Office Earning Reports:

Office Earnings - For a specific project

Office Earnings - All projects

Labor Utilization Report:

By Employee - For a specific project

By Employee - For all projects

By Labor Code - For a specific project

By Labor Code - For all projects

Fee Proposal Analysis:

Comparative Analysis of Methods

Break-Down of Drawings

Method 1 - Square Foot Basis

Method 2 - Cost Per Sheet Basis

Method 3 - Hours x Rate / Task

Architect / Engineer Cost Estimate - Worksheet

Architect / Engineer Cost Estimate - Final Sheet

Project Reports:

Project Progress Report - Specific Project - Cost and Billing

Project Progress Report - All Projects - Cost and Billing

The Output

The various outputs from the Excel Module consists of:

Employee Reports:

Employee Utilization - Current

Employee Utilization - Year-To-Date

Office Earning Reports:

Office Earnings - For a specific project

Office Earnings - All projects

Labor Utilization Report:

By Employee - For a specific project

By Employee - For all projects

By Labor Code - For a specific project

By Labor Code - For all projects

Fee Proposal Analysis:

Comparative Analysis of Methods

Break-Down of Drawings

Method 1 - Square Foot Basis

Method 2 - Cost Per Sheet Basis

Method 3 - Hours x Rate / Task

Architect / Engineer Cost Estimate - Worksheet

Architect / Engineer Cost Estimate - Final Sheet

Project Reports:

Project Progress Report - Specific Project - Cost and Billing

Project Progress Report - All Projects - Cost and Billing

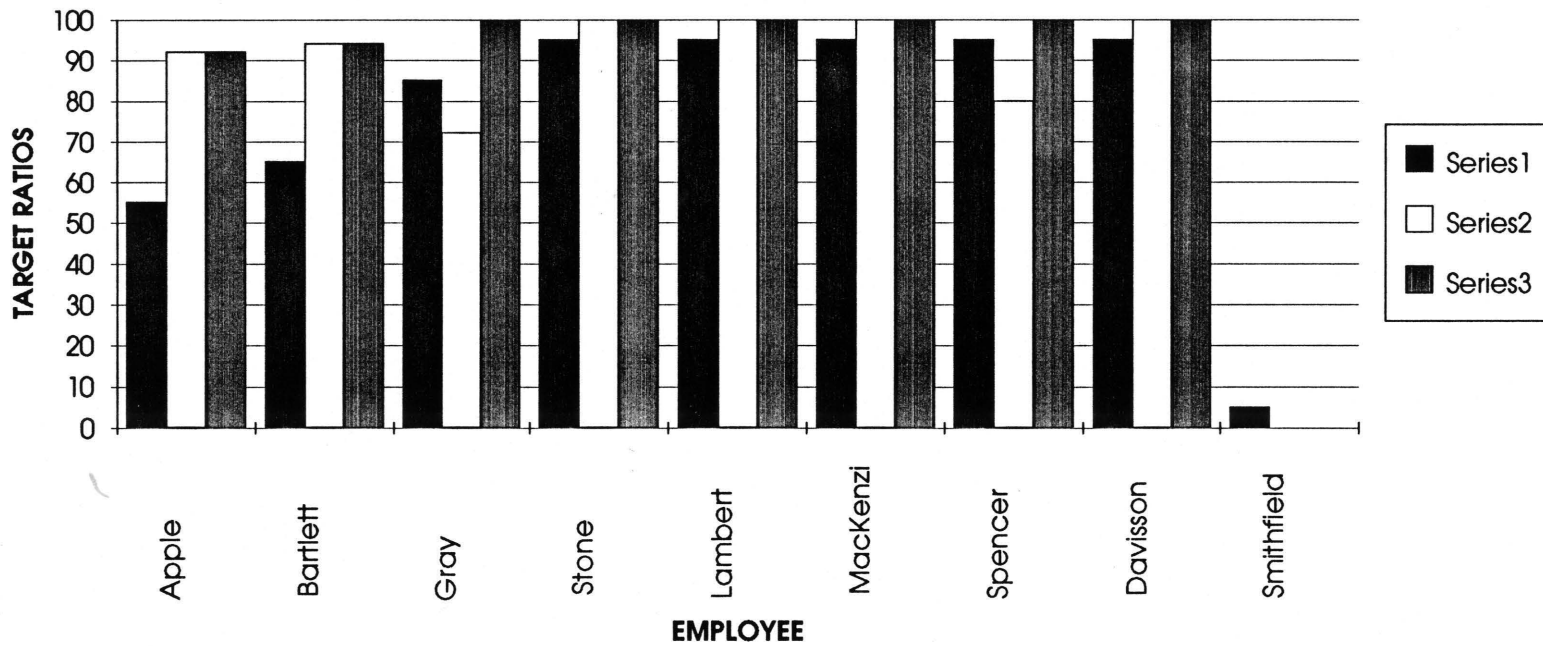
Project Summary Report - Specific Project - Cost and Billing

Project Summary Report - All Projects - Cost and Billing

Emp Num	Last Name	Cur-D Reg	Cur-D OT	Cur-I Reg	Cur-I OT	Cur Vac	Cur Sick	Cur Hol	Cur B.Div	Cur Civic	Cur Mgmt	Cur Actg	Cur P.Div	Cur Other	Cur-D Total	Cur-I Total	Total Hours	Target Ratio	Ratio A	Ratio B
1	Apple	73	8.5	7	0	0	0	0	0	0	4	0	0	3	81.5	7	88.5	55	92	92
2	Bartlett	73.5	29.5	6.5	0	0	0	0	0	0	4	0	0	2.5	103	6.5	109.5	65	94	94
101	Gray	56	6	24	0	24	0	0	0	0	0	0	0	0	62	24	86	85	72	100
201	Stone	80	21	0	0	0	0	0	0	0	0	0	0	0	101	0	101	95	100	100
202	Lambert	80	34	0	0	0	0	0	0	0	0	0	0	0	114	0	114	95	100	100
203	MacKenzi	80	28	0	0	0	0	0	0	0	0	0	0	0	108	0	108	95	100	100
301	Spencer	64	0	16	0	0	16	0	0	0	0	0	0	0	64	16	80	95	80	100
302	Davisson	66	0	0	0	0	0	0	0	0	0	0	0	0	66	0	66	95	100	100
901	Smithfield	0	0	80	0	0	0	0	0	0	0	8	0	72	0	80	80	5	0	0

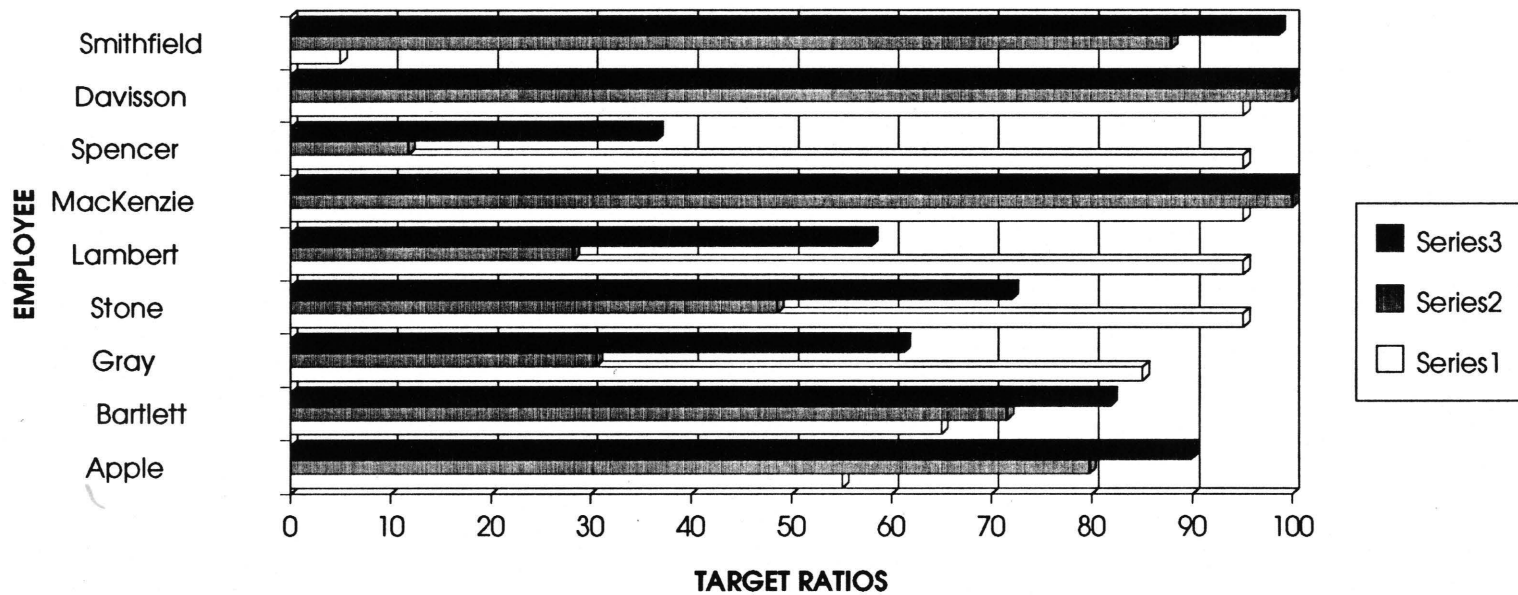
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EMPLOYEE EFFICIENCY



Emp Num	Last Name	YTD-D Reg	YTD-D OT	YTD-I Reg	YTD-I OT	YTD Vac	YTD Sick	YTD Hol	YTD B.Div	YTD Civic	YTD Mgmt	YTD Actg	YTD P.Div	YTD Other	YTD-D Total	YTD-I Total	Total Hours	Target Ratio	Ratio A	Ratio B
1	Apple	484.2	67.6	271.5	16.2	16	0	16	3.3	0	23	0	0	229.4	551.8	287.7	839.5	55	80	90
2	Bartlett	465.6	72.9	287.5	11.2	26.5	0	16	12	0	30.5	0	0	213.7	538.5	298.7	837.2	65	72	82
101	Gray	622.6	61.9	136.8	0	32	36.5	24	2.5	0	0	0	0	41.8	684.5	136.8	821.3	85	31	61
201	Stone	637	62	123.9	0.5	8	32	16	8	0	0	0	0	60.4	699.0	124.4	823.4	95	49	72
202	Lambert	686.1	76.6	78	0	32	8	16	0	0	0	0	0	22	762.7	78.0	840.7	95	28	58
203	MacKenzie	216	62.3	24	0	0	0	0	0	0	0	0	0	24	278.3	24.0	302.3	95	100	100
301	Spencer	681.8	48.4	78.4	0	8	45.2	16	0	0	0	0	0	9.2	730.2	78.4	808.6	95	12	37
302	Davisson	165	0	27	0	0	0	0	0	0	0	0	0	27	165.0	27.0	192	95	100	100
901	Smithfield	9	0	737	42.8	24	18.3	16	0	0	0	36.5	0	685	9.0	779.8	788.8	5	88	99

EMPLOYEE EFFICIENCY : Year-To-Date



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SPECIFIC PROJECT

OFFICE EARNINGS

Proj No/ Task No	Name	Label	Fee Bill	Other Bill	Total Bill	Rev	Spent	Profit	%	Fee	A/R	UnBill
9015	Seaview Wharf Condo Dev.											
101	Design Services	CUR	0	0	0	0	3362.58	-3362.58	0	0	0	0
		YTD	22630	2318.85	24948.9	24948.9	20763.4	4185.49	17	0	0	0
		JTD	22630	2318.85	24948.9	24948.9	20763.4	4185.49	17	110000	24948.9	0
201	Construction Documents	CUR	0	0	0	0	0	0	0	0	0	0
		YTD	0	0	0	0	0	0	0	0	0	0
		JTD	0	0	0	0	0	0	0	110000	0	0
301	Construction Admin.	CUR	0	0	0	0	0	0	0	0	0	0
		YTD	0	0	0	0	0	0	0	0	0	0
		JTD	0	0	0	0	0	0	0	110000	0	0
401	Additional Services	CUR	0	0	0	0	0	0	0	0	0	0
		YTD	0	0	0	0	0	0	0	0	0	0
		JTD	0	0	0	0	0	0	0	110000	0	0

ALL PROJECTS

OFFICE EARNINGS

Proj No/ Task No	Name	Label	Fee Bill	Other Bill	Total Bill	Rev	Spent	Profit	%	Fee	A/R	UnBill
8905	City Hall	CUR	0	0	0	0	5643.2	-5643.2	0	0	0	0
		YTD	42848.5	8842.31	51690.8	58906.1	60493.2	-1587.04	-3	0	0	0
		JTD	42848.5	8842.31	51690.8	58906.1	60493.2	-1587.04	-3	175000	17206.9	7215.31
9001	University Library	CUR	0	0	0	0	1676.85	-1676.85	0	0	0	0
		YTD	16314.7	4040.83	20355.6	20355.6	22532.6	-2177.05	-11	0	0	0
		JTD	16314.7	4040.83	20355.6	20355.6	22532.6	-2177.05	-11	71000	9893.34	0
9004	GNH Music Center	CUR	0	0	0	0	1268.3	-1268.3	0	0	0	0
		YTD	3433.6	1337.48	4771.08	7411.08	8838.79	-1427.71	-19	0	0	0
		JTD	3433.6	1337.48	4771.08	7411.08	8838.79	-1427.71	-19	22000	620.47	2640
9007	CAS Residence	CUR	0	0	0	0	1044.1	-1044.1	0	0	0	0
		YTD	6968.5	5401.96	12370.5	12370.5	11641.3	729.21	6	0	0	0
		JTD	6968.5	5401.96	12370.5	12370.5	11641.3	729.21	6	27300	882.94	0
9009	ABC Plaza Study	CUR	0	0	0	0	0	0	0	0	0	0
		YTD	21421.5	32	21453.5	21453.5	15753.6	5699.88	27	0	0	0
		JTD	21421.5	32	21453.5	21453.5	15753.6	5699.88	27	70000	5046	0
9013	West Glen Elem Addition	CUR	0	0	0	0	198.05	-198.05	0	0	0	0
		YTD	14362.5	6485.56	20848.1	20848.1	15352	5496.04	26	0	0	0
		JTD	14362.5	6485.56	20848.1	20848.1	15352	5496.04	26	41000	1544	0
9015	Seaview Wharf Condo Dev.											
101	Design Services	CUR	0	0	0	0	3362.58	-3362.58	0	0	0	0
		YTD	22630	2318.85	24948.9	24948.9	20763.4	4185.49	17	0	0	0
		JTD	22630	2318.85	24948.9	24948.9	20763.4	4185.49	17	110000	24948.9	0
201	Construction Documents	CUR	0	0	0	0	0	0	0	0	0	0
		YTD	0	0	0	0	0	0	0	0	0	0
		JTD	0	0	0	0	0	0	0	110000	0	0
301	Construction Admin.	CUR	0	0	0	0	0	0	0	0	0	0
		YTD	0	0	0	0	0	0	0	0	0	0
		JTD	0	0	0	0	0	0	0	110000	0	0
401	Additional Services	CUR	0	0	0	0	0	0	0	0	0	0
		YTD	0	0	0	0	0	0	0	0	0	0
		JTD	0	0	0	0	0	0	0	110000	0	0
9017	Talbots-Region											
00A	Architectural	CUR	0	0	0	0	0	0	0	0	0	0
		YTD	0	0	0	0	0	0	0	0	0	0
		JTD	0	0	0	0	0	0	0	75000	0	0

ALL PROJECTS

OFFICE EARNINGS

Proj No/ Task No	Name	Label	Fee Bill	Other Bill	Total Bill	Rev	Spent	Profit	%	Fee	A/R	UnBill
00E	Engineering	CUR	0	0	0	0	0	0	0	0	0	0
		YTD	0	0	0	0	0	0	0	0	0	0
		JTD	0	0	0	0	0	0	0	75000	0	0

ALL PROJECTS

LABOR UTILIZATION

BY EMPLOYEE

Project Num	Project Name	Emp Num	Employee Name	Acct. Pd	Reg. Hours	OT. Hours	Reg. Cost	OT. Cost
8.00	Accounting	901	Smithfield, Joanne	90/01	9	5.1	99	84.15
8.00	Accounting	901	Smithfield, Joanne	90/02	37.5	1	412.5	16.5
8.00	Accounting	901	Smithfield, Joanne	90/03	56.1	7	617.1	115.5
8.00	Accounting	901	Smithfield, Joanne	90/04	28.5	0	313.5	0
8.00	Accounting	901	Smithfield, Joanne	90/05	8	0	88	0
000P5.00	Business Development	1	Apple, William	90/01	7	0	210	0
000P5.00	Business Development	1	Apple, William	90/02	14.3	0.7	429	21
000P5.00	Business Development	1	Apple, William	90/03	11	0.3	330	9
000P5.00	Business Development	2	Bartlett, James	90/01	4.5	0	135	0
000P5.00	Business Development	2	Bartlett, James	90/02	3.2	1	96	30
000P5.00	Business Development	2	Bartlett, James	90/03	15.4	0	462	0
000P5.00	Business Development	2	Bartlett, James	90/04	1.7	0	51	0
000P5.00	Business Development	901	Smithfield, Joanne	90/03	6.5	3.5	71.5	57.75
000P5.01	DAK Office Proposal	1	Apple, William	90/02	4.3	0	129	0
000P5.01	DAK Office Proposal	101	Gray, Brenda	90/02	4.5	0	76.5	0
000P5.01	DAK Office Proposal	1	Apple, William	90/03	8.1	0	243	0
000P5.01	DAK Office Proposal	1	Apple, William	90/01	1.5	0	45	0
000P5.01	DAK Office Proposal	1	Apple, William	90/02	3	0.3	90	9
000P5.01	DAK Office Proposal	1	Apple, William	90/04	3	0.3	90	9
000P5.01	DAK Office Proposal	2	Bartlett, James	90/04	4	0	120	0
000P5.01	DAK Office Proposal	901	Smithfield, Joanne	90/02	3.5	0	38.5	0
000P5.01	DAK Office Proposal	1	Apple, William	90/03	4	0	120	0
000P5.01	DAK Office Proposal	101	Gray, Brenda	90/02	2.5	0	42.5	0
000P5.01	DAK Office Proposal	101	Gray, Brenda	90/04	2.5	0	42.5	0
000P5.01	DAK Office Proposal	1	Apple, William	90/02	8	0.5	240	15
000P5.01	DAK Office Proposal	1	Apple, William	90/02	1.5	0	45	0
000P5.01	DAK Office Proposal	101	Gray, Brenda	90/01	1.7	0	28.9	0
000P5.01	DAK Office Proposal	101	Gray, Brenda	90/02	1.7	0	28.9	0
000P5.01	DAK Office Proposal	901	Smithfield, Joanne	90/03	1	4.5	11	74.25
8905.00	City Hall	1	Apple, William	90/01	27.8	0	834	0
8905.00	City Hall	101	Gray, Brenda	90/01	53.5	0	909.5	0
8905.00	City Hall	201	Stone, Richard	90/01	4	4	60	60
8905.00	City Hall	1	Apple, William	90/01	5	0.5	150	15
8905.00	City Hall	101	Gray, Brenda	90/01	21.5	1.5	365.5	25.5
8905.00	City Hall	201	Stone, Richard	90/01	52.2	0.5	783	7.5
8905.00	City Hall	202	Lambert, Roberta	90/01	25	0	375	0

ALL PROJECTS

LABOR UTILIZATION

BY EMPLOYEE

Project Num	Project Name	Emp Num	Employee Name	Acct. Pd	Reg. Hours	OT. Hours	Reg. Cost	OT. Cost
8905.00	City Hall	1	Apple, William	90/02	19.8	0.1	594	3
8905.00	City Hall	1	Apple, William	90/03	42	10.5	1260	315
8905.00	City Hall	1	Apple, William	90/05	5	0	150	0
8905.00	City Hall	2	Bartlett, James	90/02	12.5	0.5	375	15
8905.00	City Hall	2	Bartlett, James	90/04	1.3	5	39	150
8905.00	City Hall	101	Gray, Brenda	90/01	11.5	0	195.5	0
8905.00	City Hall	101	Gray, Brenda	90/02	41.9	4.4	712.3	74.8
8905.00	City Hall	201	Stone, Richard	90/01	10	0	150	0
8905.00	City Hall	201	Stone, Richard	90/02	19	0.5	285	7.5
8905.00	City Hall	202	Lambert, Roberta	90/02	31.6	1.3	474	19.5
8905.00	City Hall	301	Spencer, Wilbur	90/02	37.5	0.5	300	4
8905.00	City Hall	1	Apple, William	90/03	12	5.3	360	159
8905.00	City Hall	1	Apple, William	90/04	0	14	0	420
8905.00	City Hall	1	Apple, William	90/05	10	0	300	0
8905.00	City Hall	2	Bartlett, James	90/02	4.5	0	135	0
8905.00	City Hall	101	Gray, Brenda	90/02	8.5	0	144.5	0
8905.00	City Hall	101	Gray, Brenda	90/03	15.2	0	258.4	0
8905.00	City Hall	101	Gray, Brenda	90/05	10	2	170	34
8905.00	City Hall	201	Stone, Richard	90/02	1.7	0.3	25.5	4.5
8905.00	City Hall	202	Lambert, Roberta	90/02	2.3	0	34.5	0
8905.00	City Hall	301	Spencer, Wilbur	90/02	8.5	0	68	0
8905.00	City Hall	301	Spencer, Wilbur	90/03	58.4	6.2	467.2	49.6
8905.00	City Hall	301	Spencer, Wilbur	90/04	36	4	288	32
8905.00	City Hall	301	Spencer, Wilbur	90/05	24	0	192	0
8905.00	City Hall	302	Davisson, Emily	90/04	8	0	60	0
8905.00	City Hall	302	Davisson, Emily	90/05	16	0	120	0
8905.00	City Hall	2	Bartlett, James	90/05	4	0	120	0
8905.00	City Hall	101	Gray, Brenda	90/05	0	4	0	68
8905.00	City Hall	1	Apple, William	90/02	2.4	0	72	0
8905.00	City Hall	1	Apple, William	90/03	9.2	4.5	276	135
8905.00	City Hall	1	Apple, William	90/05	6	0	180	0
8905.00	City Hall	101	Gray, Brenda	90/02	5.5	0	93.5	0
8905.00	City Hall	101	Gray, Brenda	90/03	42.2	12.8	717.4	217.6
8905.00	City Hall	101	Gray, Brenda	90/04	7	3	119	51
8905.00	City Hall	101	Gray, Brenda	90/05	10	0	170	0
8905.00	City Hall	201	Stone, Richard	90/02	3	0	45	0

ALL PROJECTS

LABOR UTILIZATION

LABOR CODE

Project No	Project Name	Labor Cd	YTD Cost	JTD Cost	YTD Hrs	JTD Hrs
1	General Overhead		0	307.5	307.5	27
1	General Overhead	G00		14910.25	14910.25	875.1
2	Vacation		0	120	120	8
2	Vacation	G00		2627	2627	138.5
3	Sick Leave	G00		1783.4	1783.4	140
4	Holiday	G00		2152	2152	120
6	Civic Duty	G00		516.3	516.3	24.1
7	Management	A01		30	30	1
7	Management	G00		2406	2406	84.5
8	Accounting	G00		1746.25	1746.25	152.2
9	Professional Development	G00		348	348	20
000P5.00	Business Development	G00		1902.25	1902.25	69.1
000P5.01	DAK Office Proposal	1D2		205.5	205.5	8.8
000P5.01	DAK Office Proposal	1M3		243	243	8.1
000P5.01	DAK Office Proposal	1S0		401.5	401.5	15.6
000P5.01	DAK Office Proposal	1S1		205	205	9
000P5.01	DAK Office Proposal	1S2		255	255	8.5
000P5.01	DAK Office Proposal	1S3		45	45	1.5
000P5.01	DAK Office Proposal	1S9		57.8	57.8	3.4
000P5.01	DAK Office Proposal	A00		85.25	85.25	5.5
000P5.02	BJB School Proposal	1D2		315	315	11
000P5.02	BJB School Proposal	1M2		30	30	2
000P5.02	BJB School Proposal	1M7		325.5	325.5	12.1
000P5.02	BJB School Proposal	1S0		44	44	4
000P5.02	BJB School Proposal	1S1		15	15	1
000P5.02	BJB School Proposal	A00		465	465	16
000P5.02	BJB School Proposal	A01		843	843	32.1
000P5.02	BJB School Proposal	A03		168	168	8.7
000P5.02	BJB School Proposal	A09		44	44	4
000P5.02	BJB School Proposal	G00		120	120	8
000P5.02	BJB School Proposal	PS0		240	240	16
8905	City Hall	A01		1863.5	1863.5	89.3
8905	City Hall	A02		1721.5	1721.5	106.2
8905	City Hall	A03		5123.6	5123.6	254.9
8905	City Hall	A04		3322.2	3322.2	246.9
8905	City Hall	A05		188	188	8

ALL PROJECTS

LABOR UTILIZATION

LABOR CODE

Project No	Project Name	Labor Cd	YTD Cost	JTD Cost	YTD Hrs	JTD Hrs
8905	City Hall	A06	0	0	0	0
8905	City Hall	A07	0	0	0	0
8905	City Hall	A08	0	0	0	0
8905	City Hall	A09	0	0	0	0
8905	City Hall	I03	2096	2096	106.9	106.9
8905	City Hall	I04	894.4	894.4	46.7	46.7
8905	City Hall	I05	0	0	0	0
8905	City Hall	I06	0	0	0	0
8905	City Hall	I07	0	0	0	0
8915	Balboa Office Park	A01	590.5	590.5	29.3	29.3
8915	Balboa Office Park	A02	783.5	783.5	44.1	44.1
8915	Balboa Office Park	A03	2018.3	2018.3	90.9	90.9
8915	Balboa Office Park	A04	1993.2	1993.2	101.3	101.3
8915	Balboa Office Park	A05	570	570	25	25
8915	Balboa Office Park	A09	0	0	0	0
8915	Balboa Office Park	I03	634.5	634.5	28.5	28.5
8915	Balboa Office Park	I04	0	0	0	0
8915	Balboa Office Park	I05	0	0	0	0
9001	University Library	A00	49.5	49.5	4.5	4.5
9001	University Library	A01	571	571	34.7	34.7
9001	University Library	A02	913.5	913.5	47.9	47.9
9001	University Library	A03	1139.5	1139.5	69	69
9001	University Library	A04	504	504	16.8	16.8
9001	University Library	A05	0	0	0	0
9001	University Library	A06	0	0	0	0
9001	University Library	A07	0	0	0	0
9001	University Library	A08	0	0	0	0
9001	University Library	A09	0	0	0	0
9001	University Library	E13	1069.5	1069.5	67.3	67.3
9001	University Library	E14	688.5	688.5	45.9	45.9
9001	University Library	E15	0	0	0	0
9001	University Library	I03	105	105	3.5	3.5
9001	University Library	M11	552	552	36.8	36.8
9001	University Library	M12	100.5	100.5	6.7	6.7
9001	University Library	M13	0	0	0	0
9001	University Library	M14	0	0	0	0

FEE COMPARISON

FEE PROPOSAL ANALYSIS

**ARIEL RIOS FEDERAL BUILDING
DEPARTMENT OF JUSTICE**

COMPARATIVE ANALYSIS OF THE METHODS

METHOD - 1		Square Foot Basis
(A)	Full Service	\$665,206
(B)	Space Planning Without Programming	\$369,559

METHOD - 2		Cost Per Sheet Basis
(A)	Cost / Dwg (High)	\$480,000
(B)	Cost / Dwg (Low)	\$320,000
(C)	Cost / Dwg (N+A Average)	\$536,000

METHOD - 3		Hours x Rate / Task
(A)		\$382,115

DRAWINGS WORKSHEET

FEE PROPOSAL ANALYSIS

ARIEL RIOS FEDERAL BUILDING

DEPARTMENT OF JUSTICE

BREAK-DOWN OF DRAWINGS :

Floor Level	Demolition Plan	Architectural Plan	Reflected Ceiling Plan	Furniture Plan	Power & Telecomm	Total
Basement	0	0	0	0	0	0
First - Seventh	14	14	14	14	0	56
Eighth - Attic	0	0	0	0	0	0
	14	14	14	14	0	56

Miscellaneous Drawings:

Cover Sheet	1
Symbols and Notes	1
Details	20
Miscellaneous	2

TOTAL	80
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METHOD - 1

FEE PROPOSAL ANALYSIS

**ARIEL RIOS FEDERAL BUILDING
DEPARTMENT OF JUSTICE**

A . METHOD 1 - SQUARE FOOT BASIS

(A)	Full Service Rate *	\$4.50
(B)	Space Planning Without Programming	\$2.50

* (Source: Interiors Magazine, 1991 Atlantic Region)

AREAS:	OSF
Phase - 1	77,000
Phase - 2	49,900 **
Total	126,900

COMPUTATION:	(A)	(B)
Phase - 1	\$346,500	\$192,500
Phase - 2	\$224,550	\$124,750

** Add Phasing Impact (15% of Phase - 2)	\$33,683	\$18,713
Sub-Total	\$604,733	\$335,963

Add Reimbursables (10% of Sub-Total)	\$60,473	\$33,596
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ARCHITECTURAL FEES:	\$665,206	\$369,559
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METHOD - 2

FEE PROPOSAL ANALYSIS

**ARIEL RIOS FEDERAL BUILDING
DEPARTMENT OF JUSTICE**

B. METHOD 2 - COST PER SHEET BASIS

(A)	Average cost per drawing - including M/E (High) : *	\$6,000
(B)	Average cost per drawing - including M/E (Low) : *	\$4,000
(C)	N + A Average cost per drawing (Arch only)	
	100 Hrs X \$67.00/ Hr	\$6,700

* (Source : GSA Insider Information)

NUMBER OF DRAWINGS	80
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(A)	(B)	(C)
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ARCHITECTURAL FEES:	\$480,000	\$320,000	\$536,000
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METHOD - 3

FEE PROPOSAL ANALYSIS

ARIEL RIOS FEDERAL BUILDING

DEPARTMENT OF JUSTICE

C. METHOD 3 - HOURS x RATE / TASK

Total Area:	126,900	osf		
Total Number of Drawings:	80			
Task			Rate	Cost
(a) Verification of Survey Data			0.10 /sf	\$12,690
(b) Survey of Existing Equipment/ Furniture/ Space			0.38 /sf	\$48,222
(c) Space Planning Service With Phasing			1.25 /sf	\$158,625
(d) Specifications [With Consultants \$10,000 - \$12,000] [In-house]				\$10,000
(e) Cost Estimate [With Consultant]				
(f) Area Calculation & Verification of Blocking				\$5,000
(g) Scheduling [With Consultant]				
(h) Design [24 Hours x Number of Dwgs x 22]				\$42,240
(i) Finish Boards				\$6,000
(j) Handicap Toilet Design				\$5,600
(k) Security Design				\$32,000
(l) FPMR				\$3,000
(m) Signage [In-house]				\$12,000
(n) Meetings [4 @ \$3,000]				\$12,000
Direct Labor				\$347,377
(o) Printing & Reproduction [10% of D.L.]				\$34,738
ARCHITECTURAL FEES				\$382,115

ARCHITECT - ENGINEER COST ESTIMATE		CITY		STATE	
		BUILDING		PROJECT NO.	
DESIGN STAGE				COMPLETION IN WEEKS	
A. DIRECT SALARY COSTS					
SPECIALITIES	JOB TITLES	MAN-HRS	RATES %	AMOUNTS \$	TOTALS \$
PROJECT	PRINCIPAL	0	64.60	\$0.00	
MGMT. & COORD.	PROJ. MANAGER	0	37.00	\$0.00	\$40,686.91
ARCHITECTURAL	ARCHITECT	0	22.85	\$0.00	
	ARCHL. DRAFTSMAN	0	15.00	\$0.00	
	INTERIOR DESIGNER	0	37.00	\$0.00	
	INTERIOR DRAFTSMAN	0	15.00	\$0.00	
STRUCTURAL					\$0.00
MECHANICAL					\$0.00
ELECTRICAL					\$0.00
SPECIFICATIONS				\$0.00	\$0.00
ESTIMATES	WORD PROCESSOR	0	13.04	\$0.00	
				\$0.00	
				\$0.00	\$0.00
TOTAL DWGS	MAN-HOURS	0	TOTAL SALARIES A		\$406,869.06
B. CONSULTANTS (attach estimates)				AMOUNTS \$	
1)					
2)					
3)					
4)					
TOTAL CONSULTANTS B				\$0.00	
C. OTHER DIRECT COSTS (attach estimates)				AMOUNTS	
1)				\$400.00	
2)				\$100.00	
3)					
4)					
TOTAL OTHER DIRECT COSTS C				\$500.00	
D. OVERHEAD POOLS					
TITLES		RATES %	BASES \$	ITEMS	
		1.68	\$406,869.06	A	
ARCHITECT (firm name & address) Notter + Associates PC 1350 Connecticut Ave, NW, Suite 400 Washington, DC 200036		E) TOTAL COST TO A/E			\$1,090,909.09
		F) PROFIT 10% OF E			\$109,090.91
		G) TOTAL COST TO GOVT.			\$1,200,000.00
PREPARED BY (signature & title)			DATE	APPROVED BY (signature & title) DATE	

ARCHITECT - ENGINEER COST ESTIMATE	CITY	STATE
	BUILDING	PROJECT NO.
DESIGN STAGE		COMPLETION IN WEEKS

A. DIRECT SALARY COSTS

SPECIALITIES	JOB TITLES	MAN-HRS	RATES %	AMOUNTS \$	TOTALS \$
PROJECT MGMT. & COORD.	PRINCIPAL	8	64.60	\$516.80	
	PROJ. MANAGER	32	37.00	\$1,184.00	\$1,700.80
ARCHITECTURAL	ARCHITECT	16	22.85	\$365.60	
	ARCHL. DRAFTSMAN	16	15.00	\$240.00	
	INTERIOR DESIGNER	80	37.00	\$2,960.00	
	INTERIOR DRAFTSMAN	120	15.00	\$1,800.00	
					\$5,365.60
STRUCTURAL					\$0.00
MECHANICAL					\$0.00
ELECTRICAL					\$0.00
SPECIFICATIONS				\$0.00	\$0.00
ESTIMATES	WORD PROCESSOR	16	13.04	\$208.64	
				\$0.00	
				\$0.00	\$208.64
TOTAL DWGS	MAN-HOURS	288		TOTAL SALARIES A	\$7,275.04

B. CONSULTANTS (attach estimates)

	AMOUNTS \$
1)	
2)	
3)	
4)	
TOTAL CONSULTANTS B	\$0.00

C. OTHER DIRECT COSTS (attach estimates)

	AMOUNTS
1)	\$400.00
2)	\$100.00
3)	
4)	
TOTAL OTHER DIRECT COSTS C	\$500.00

D. OVERHEAD POOLS

TITLES	RATES %	BASES \$	ITEMS
	1.68	7275.04	A

ARCHITECT (firm name & address) Notter + Associates PC 1350 Connecticut Ave, NW, Suite 400 Washington DC 20036	(E) TOTAL COST TO A/E	\$19,997.11
	(F) PROFIT 10% OF E	\$1,999.71
	(G) TOTAL COST TO GOVT.	\$21,996.82

PREPARED BY (signature & title)	DATE	APPROVED BY (signature & title)	DATE
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SPECIFIC PROJECT

PROGRESS REPORT

(COST)

Proj No/ Task No	Name	Section	Label	Current Hours	Current Cost	JTD Hours	JTD Cost	Budget Hours	Budget Cost	%E	%R	Balance Hours	Balance Cost
9015.00	Seaview Wharf Condo Dev.												
101	Design Services	LAB	A03	27	615	211	4149	300	4800	86	75	89	651
			A04	43	811	228	4326	300	4800	90	75	72	474
		OH*		0	1896.58	0	11271.8	0	15360	73	75	0	4088.25
		DIR	622	0	0	0	5	0	50	10	10	0	45
			629	0	0	0	45.6	0	150	30	30	0	104.4
		REM	511	0	40	0	195	0	200	98	75	0	5
			512	0	0	0	210	0	200	105	100	0	-10
			521	0	0	0	150	0	150	100	100	0	0
			521.01	0	0	0	169.2	0	100	169	100	0	-69.2
			522	0	0	0	194.95	0	300	65	67	0	105.05
			524	0	0	0	35.36	0	50	71	75	0	14.64
			529	0	0	0	11.5	0	50	23	20	0	38.5
201	Construction Documents	LAB	A05	0	0	0	0	900	11600	0	0	900	11600
		OH*		0	0	0	0	0	18560	0	0	0	18560
		DIR	622	0	0	0	0	0	200	0	0	0	200
			623	0	0	0	0	0	500	0	0	0	500
			629	0	0	0	0	0	150	0	0	0	150
301	Construction Admin.	LAB	A06	0	0	0	0	200	3200	0	0	200	3200
			A07	0	0	0	0	200	3200	0	0	200	3200
		OH*		0	0	0	0	0	10240	0	0	0	10240
		DIR	615	0	0	0	0	0	600	0	0	0	600
			621	0	0	0	0	0	450	0	0	0	450
			621.01	0	0	0	0	0	50	0	0	0	50
			629	0	0	0	0	0	100	0	0	0	100
401	Additional Services	LAB	A08	0	0	0	0	40	640	0	0	40	640
			A09	0	0	0	0	60	960	0	0	60	960
		OH*		0	0	0	0	0	2560	0	0	0	2560
		DIR	629	0	0	0	0	0	100	0	0	0	100
		REM	511	0	0	0	0	0	200	0	0	0	200
			529	0	0	0	0	0	100	0	0	0	100

SPECIFIC PROJECT

PROGRESS REPORT

(BILLING)

Proj No/ Task No.	Description	Section	Label	Current Hours	Current Bill	JTD Hours	JTD Bill	Budget Hours	Budget Bill	%E	%R	Balance Hours	Balance Bill
9015	Seaview Wharf Condo Dev.												
101	Design Services	LAB	A03	27	1875	211	13205	300	14400	92	75	89	1195
			A04	43	2520	228	13820	300	14400	96	75	72	580
		DIR	622	0	0	0	0	0	0	0	10	0	0
			629	0	0	0	0	0	0	0	30	0	0
		REM	511	0	44	0	214.5	0	260	83	75	0	45.5
			512	0	0	0	231	0	260	89	100	0	29
			521	0	0	0	195	0	195	100	100	0	0
			521.01	0	0	0	219.96	0	130	169	100	0	-89.96
			522	0	0	0	253.43	0	390	65	67	0	136.57
			524	0	0	0	45.97	0	65	71	75	0	19.03
			529	0	0	0	14.95	0	65	23	20	0	50.05
201	Construction Documents	LAB	A05	0	0	0	0	900	34800	0	0	900	34800
		DIR	622	0	0	0	0	0	0	0	0	0	0
			623	0	0	0	0	0	0	0	0	0	0
			629	0	0	0	0	0	0	0	0	0	0
301	Construction Admin.	LAB	A06	0	0	0	0	200	9600	0	0	200	9600
			A07	0	0	0	0	200	9600	0	0	200	9600
		DIR	615	0	0	0	0	0	0	0	0	0	0
			621	0	0	0	0	0	0	0	0	0	0
			621.01	0	0	0	0	0	0	0	0	0	0
			629	0	0	0	0	0	0	0	0	0	0
401	Additional Services	LAB	A08	0	0	0	0	40	1920	0	0	40	1920
			A09	0	0	0	0	60	2880	0	0	60	2880
		DIR	629	0	0	0	0	0	0	0	0	0	0
		REM	511	0	0	0	0	0	260	0	0	0	260
			529	0	0	0	0	0	130	0	0	0	130

Proj No/ Task No	Name	Section	Label	Current Hours	Current Cost	JTD Hours	JTD Cost	Budget Hours	Budget Cost	%E	%R	Balance Hours	Balance Cost
8	Accounting	LAB	G00	8	88	152.2	1746.25	0	0	0	0	0	0
		EXP	752	0	0	0	250	0	0	0	0	0	0
			753	0	0	0	23.9	0	0	0	0	0	0
000P5.00	Business Development	LAB	G00	0	0	69.1	1902.25	0	0	0	0	0	0
		EXP	736	0	0	0	400	0	0	0	0	0	0
			743	0	0	0	100.28	0	0	0	0	0	0
			745	0	0	0	72	0	0	0	0	0	0
			748	0	0	0	753.08	0	0	0	0	0	0
			764	0	0	0	895.24	0	0	0	0	0	0
			765	0	0	0	150	0	0	0	0	0	0
000P5.01	DAK Office Proposal	LAB	1D2	0	0	8.8	205.5	0	0	0	0	0	0
			1M3	0	0	8.1	243	0	0	0	0	0	0
			1S0	0	0	15.6	401.5	0	0	0	0	0	0
			1S1	0	0	9	205	0	0	0	0	0	0
			1S2	0	0	8.5	255	0	0	0	0	0	0
			1S3	0	0	1.5	45	0	0	0	0	0	0
			1S9	0	0	3.4	57.8	0	0	0	0	0	0
			A00	0	0	5.5	85.25	0	0	0	0	0	0
		EXP	743	0	0	0	19.89	0	0	0	0	0	0
			745	0	0	0	70	0	0	0	0	0	0
			746	0	0	0	50	0	0	0	0	0	0
			748	0	0	0	302.42	0	0	0	0	0	0
			764	0	0	0	797.96	0	0	0	0	0	0
			765	0	0	0	555.2	0	0	0	0	0	0
8905	City Hall	LAB	A01	0	0	89.3	1863.5	100	1700	110	100	10.7	-163.5
			A02	0	0	106.2	1721.5	100	1700	101	100	-6.2	-21.5
			A03	5	150	254.9	5123.6	290	5100	100	98	35.1	-23.6
			A04	62	816	246.9	3322.2	290	5100	65	48	43.1	1777.8
			A05	8	188	8	188	775	13580	1	0	767	13392
			A06	0	0	0	0	50	700	0	0	50	700
			A07	0	0	0	0	200	3400	0	0	200	3400
			A08	0	0	0	0	100	1700	0	0	100	1700
			A09	0	0	0	0	50	700	0	0	50	700
			I03	16	350	106.9	2096	160	2830	74	62	53.1	734
			I04	13	286	46.7	894.4	193	3400	26	48	146.3	2505.6

ALL PROJECTS

PROGRESS REPORT

(COST)

Proj No/ Task No	Name	Section	Label	Current Hours	Current Cost	JTD Hours	JTD Cost	Budget Hours	Budget Cost	%E	%R	Balance Hours	Balance Cost
			I05	0	0	0	0	257	4530	0	0	257	4530
			I06	0	0	0	0	16	283	0	0	16	283
			I07	0	0	0	0	16	283	0	0	16	283
		OH*		0	2380.7	0	20010.9	0	72009.6	28	32	0	51998.8
		DIR	611	0	0	0	11573.6	0	10000	116	100	0	-1573.56
			612	0	0	0	0	0	0	0	0	0	0
			613	0	0	0	0	0	0	0	0	0	0
			615	0	600	0	4235	0	5000	85	73	0	765
			622	0	0	0	208.7	0	1200	17	17	0	991.3
			623	0	0	0	0	0	0	0	0	0	0
			624	0	0	0	0	0	0	0	0	0	0
			625	0	0	0	0	0	0	0	0	0	0
			629	0	50	0	112.5	0	2000	6	3	0	1887.5
		REM	511	0	0	0	1000	0	1000	100	100	0	0
			512	0	0	0	1950	0	2000	98	100	0	50
			513	0	575	0	1800	0	2000	90	61	0	200
			515	0	0	0	1000	0	1000	100	100	0	0
			521	0	0	0	1727.73	0	2000	86	86	0	272.27
			521.01	0	0	0	223.1	0	500	45	45	0	276.9
			522	0	22.5	0	544.47	0	1000	54	52	0	455.53
			523	0	225	0	257.5	0	2500	10	5	0	2242.5
			524	0	0	0	115.7	0	1700	7	25	0	1584.3
			525	0	0	0	14.5	0	1700	1	10	0	1685.5
			529	0	0	0	510.35	0	500	102	100	0	-10.35
9001	University Library	LAB	A00	0	0	4.5	49.5	0	0	0	0	0	0
			A01	0	0	34.7	571	33	560	102	100	-1.7	-11
			A02	0	0	47.9	913.5	35	560	163	100	-12.9	-353.5
			A03	6	90	69	1139.5	100	1800	63	58	31	660.5
			A04	5	150	16.8	504	100	1800	28	20	83.2	1296
			A05	0	0	0	0	267	4700	0	0	267	4700
			A06	0	0	0	0	35	580	0	0	35	580
			A07	0	0	0	0	67	1280	0	0	67	1280
			A08	0	0	0	0	8	130	0	0	8	130
			A09	0	0	0	0	27	235	0	0	27	235
			E13	5	75	67.3	1069.5	67	1300	82	77	-0.3	230.5
			E14	16	240	45.9	688.5	100	1500	46	30	54.1	811.5

Proj No/ Task No.	Description	Section	Label	Current Hours	Current Bill	JTD Hours	JTD Bill	Budget Hours	Budget Bill	%E	%R	Balance Hours	Balance Bill
8	Accounting	LAB	G00	8	0	152.2	0	0	0	0	0	0	0
		EXP	752	0	0	0	0	0	0	0	0	0	0
			753	0	0	0	0	0	0	0	0	0	0
000P5.00	Business Development	LAB	G00	0	0	69.1	0	0	0	0	0	0	0
		EXP	736	0	0	0	0	0	0	0	0	0	0
			743	0	0	0	0	0	0	0	0	0	0
			745	0	0	0	0	0	0	0	0	0	0
			748	0	0	0	0	0	0	0	0	0	0
			764	0	0	0	0	0	0	0	0	0	0
			765	0	0	0	0	0	0	0	0	0	0
000P5.01	DAK Office Proposal	LAB	1D2	0	0	8.8	0	0	0	0	0	0	0
			1M3	0	0	8.1	0	0	0	0	0	0	0
			1S0	0	0	15.6	0	0	0	0	0	0	0
			1S1	0	0	9	0	0	0	0	0	0	0
			1S2	0	0	8.5	0	0	0	0	0	0	0
			1S3	0	0	1.5	0	0	0	0	0	0	0
			1S9	0	0	3.4	0	0	0	0	0	0	0
			A00	0	0	5.5	0	0	0	0	0	0	0
		EXP	743	0	0	0	0	0	0	0	0	0	0
			745	0	0	0	0	0	0	0	0	0	0
			746	0	0	0	0	0	0	0	0	0	0
			748	0	0	0	0	0	0	0	0	0	0
			764	0	0	0	0	0	0	0	0	0	0
			765	0	0	0	0	0	0	0	0	0	0
8905	City Hall	LAB	A01	0	0	89.3	5404.15	100	5100	106	100	10.7	-304.15
			A02	0	0	106.2	4992.35	100	5100	98	100	-6.2	107.65
			A03	5	400	254.9	14747.8	290	15300	96	98	35.1	552.16
			A04	62	2580	246.9	9847.98	290	15300	64	48	43.1	5452.02
			A05	8	560	8	560	775	40740	1	0	767	40180
			A06	0	0	0	0	50	2100	0	0	50	2100
			A07	0	0	0	0	200	10200	0	0	200	10200
			A08	0	0	0	0	100	5100	0	0	100	5100
			A09	0	0	0	0	50	2100	0	0	50	2100
			I03	16	1130	106.9	6350.4	160	8490	75	62	53.1	2139.6
			I04	13	895	46.7	2816.36	193	10200	28	48	146.3	7383.64

ALL PROJECTS

PROGRESS REPORT

(BILLING)

Proj No/ Task No.	Description	Section	Label	Current Hours	Current Bill	JTD Hours	JTD Bill	Budget Hours	Budget Bill	%E	%R	Balance Hours	Balance Bill
			I05	0	0	0	0	257	13590	0	0	257	13590
			I06	0	0	0	0	16	849	0	0	16	849
			I07	0	0	0	0	16	849	0	0	16	849
		DIR	611	0	0	0	0	0	0	0	100	0	0
			612	0	0	0	0	0	0	0	0	0	0
			613	0	0	0	0	0	0	0	0	0	0
			615	0	600	0	600	0	0	0	73	0	0
			622	0	0	0	0	0	0	0	17	0	0
			623	0	0	0	0	0	0	0	0	0	0
			624	0	0	0	0	0	0	0	0	0	0
			625	0	0	0	0	0	0	0	0	0	0
			629	0	50	0	50	0	0	0	3	0	0
		REM	511	0	0	0	1250	0	1300	96	100	0	50
			512	0	0	0	2437.5	0	2600	94	100	0	162.5
			513	0	575	0	1993.75	0	2600	77	61	0	606.25
			515	0	0	0	1181.25	0	1300	91	100	0	118.75
			521	0	0	0	2080.02	0	2600	80	86	0	519.98
			521.01	0	0	0	278.88	0	650	43	45	0	371.12
			522	0	24.75	0	669.34	0	1300	51	52	0	630.66
			523	0	247.5	0	288.13	0	3250	9	5	0	2961.87
			524	0	0	0	140.86	0	2210	6	25	0	2069.14
			525	0	0	0	18.13	0	2210	1	10	0	2191.87
			529	0	0	0	636.74	0	650	98	100	0	13.26
9001	University Library	LAB	A00	0	0	4.5	143.55	0	0	0	0	0	0
			A01	0	0	34.7	1655.9	33	1680	99	100	-1.7	24.1
			A02	0	0	47.9	2649.15	35	1680	158	100	-12.9	-969.15
			A03	6	285.75	69	3329.3	100	5400	62	58	31	2070.7
			A04	5	476.25	16.8	1502.85	100	5400	28	20	83.2	3897.15
			A05	0	0	0	0	267	14100	0	0	267	14100
			A06	0	0	0	0	35	1740	0	0	35	1740
			A07	0	0	0	0	67	3840	0	0	67	3840
			A08	0	0	0	0	8	390	0	0	8	390
			A09	0	0	0	0	27	705	0	0	27	705
			E13	5	238.13	67.3	3132.49	67	3900	80	77	-0.3	767.51
			E14	16	762	45.9	2143.09	100	4500	48	30	54.1	2356.91
			E15	0	0	0	0	40	1800	0	0	40	1800

ALL PROJECTS

PROJECT SUMMARY

(COST)

Proj No/ Task No	Project Name	Label	Current Hrs	Current Cost	JTD Hours	JTD Cost	Budget Hours	Budget Cost	%E	%R
8	Accounting	LAB	8	88	152.2	1746.25	0	0	0	0
		EXP	0	0	0	273.9	0	0	0	0
000P5.00	Business Development	LAB	0	0	69.1	1902.25	0	0	0	0
		EXP	0	0	0	2370.6	0	0	0	0
000P5.01	DAK Office Proposal	LAB	0	0	60.4	1498.05	0	0	0	0
		EXP	0	0	0	1795.47	0	0	0	0
8905	City Hall	LAB	104	1790	858.9	15209.2	2597	45006	34	32
		OH*	0	2380.7	0	20010.85	0	72009.6	28	32
		DIR	0	650	0	16129.76	0	18200	89	76
		REM	0	822.5	0	9143.35	0	15900	58	56
9001	University Library	LAB	36	615	333.1	5693	1418	23845	24	19
		OH*	0	817.95	0	7571.69	0	38152	20	19
		DIR	0	0	0	5537.8	0	4500	123	100
		REM	0	243.9	0	3730.13	0	6350	59	39
9004	GNH Music Center	LAB	31	510	131	2475	386	6880	36	29
		OH*	0	678.3	0	3291.75	0	11008	30	29
		DIR	0	0	0	1808.51	0	1800	100	65
		REM	0	80	0	1263.53	0	2050	62	61
9007	CAS Residence	LAB	27	270	178.8	2569.8	399	8305	31	27
		OH*	0	359.1	0	3417.83	0	13288	26	27
		DIR	0	180	0	1206.37	0	1700	71	53
		REM	0	235	0	4447.25	0	6600	67	62
9009	ABC Plaza Study	LAB	0	0	280.8	4408.7	1195.2	20662.92	21	24
		OH*	0	0	0	5863.57	0	33060.67	18	24
		DIR	0	0	0	5457.35	0	14300	38	41
		REM	0	0	0	24	0	0	0	0
9013	West Glen Elem Addition	LAB	5	85	219.6	3751.7	804	13818	27	27
		OH*	0	113.05	0	4989.76	0	22108.8	23	27
		DIR	0	0	0	125	0	0	0	0
		REM	0	0	0	6485.56	0	4525	143	85
9015	Seaview Wharf Condo Dev.									
101	Design Services	LAB	70	1426	439	8475	600	9600	88	75
		OH*	0	1896.58	0	11271.75	0	15360	73	75
		DIR	0	0	0	50.6	0	200	25	25
		REM	0	40	0	966.01	0	1050	92	81
201	Construction Documents	LAB	0	0	0	0	900	11600	0	0

ALL PROJECTS

PROJECT SUMMARY

(COST)

Proj No/ Task No	Project Name	Label	Current Hrs	Current Cost	JTD Hours	JTD Cost	Budget Hours	Budget Cost	%E	%R
		OH*	0	0	0	0	0	18560	0	0
		DIR	0	0	0	0	0	850	0	0
301	Construction Admin.	LAB	0	0	0	0	400	6400	0	0
		OH*	0	0	0	0	0	10240	0	0
		DIR	0	0	0	0	0	1200	0	0
401	Additional Services	LAB	0	0	0	0	100	1600	0	0
		OH*	0	0	0	0	0	2560	0	0
		DIR	0	0	0	0	0	100	0	0
		REM	0	0	0	0	0	300	0	0
9017	Talbots-Region									
00A	Architectural	LAB	0	0	0	0	0	0	0	0
		OH*	0	0	0	0	0	0	0	0
00E	Engineering	LAB	0	0	0	0	0	0	0	0
		OH*	0	0	0	0	0	0	0	0

ALL PROJECTS

PROJECT SUMMARY

(BILLING)

Proj No/ Task No.	Project Name	Label	Current Hrs	Current Bill	JTD Hrs	JTD Bill	Budget Hrs	Budget Bill	%E	%R
8	Accounting	LAB	8	0	152.2	0	0	0	0	0
		EXP	0	0	0	0	0	0	0	0
000P5.00	Business Development	LAB	0	0	69.1	0	0	0	0	0
		EXP	0	0	0	0	0	0	0	0
000P5.01	DAK Office Proposal	LAB	0	0	60.4	0	0	0	0	0
		EXP	0	0	0	0	0	0	0	0
8905	City Hall	LAB	104	5565	858.9	44719.08	2597	135018	33	32
		DIR	0	650	0	650	0	0	0	0
		REM	0	847.25	0	10974.6	0	20670	53	56
9001	University Library	LAB	36	1952.63	333.1	16775.77	1418	71535	23	19
		DIR	0	0	0	0	0	0	0	0
		REM	0	285.36	0	4521.89	0	8255	55	39
9004	GNH Music Center	LAB	31	0	131	0	386	20640	0	29
		DIR	0	0	0	0	0	0	0	0
		REM	0	88	0	1562.28	0	2665	59	61
9007	CAS Residence	LAB	27	900	178.8	7596.47	399	24915	30	27
		DIR	0	180	0	180	0	0	0	0
		REM	0	282	0	5533.56	0	8580	64	62
9009	ABC Plaza Study	LAB	0	0	280.8	13091.23	1195.2	61988.76	21	24
		DIR	0	0	0	0	0	0	0	0
		REM	0	0	0	30	0	0	0	0
9013	West Glen Elem Addition	LAB	5	325	219.6	10850.43	804	41454	26	27
		DIR	0	0	0	0	0	0	0	0
		REM	0	0	0	7780.96	0	5882.5	132	85
9015	Seavlew Wharf Condo Dev.									
101	Design Services	LAB	70	4395	439	27025	600	28800	94	75
		DIR	0	0	0	0	0	0	0	0
		REM	0	44	0	1174.81	0	1365	86	81
201	Construction Documents	LAB	0	0	0	0	900	34800	0	0
		DIR	0	0	0	0	0	0	0	0
301	Construction Admin.	LAB	0	0	0	0	400	19200	0	0
		DIR	0	0	0	0	0	0	0	0
401	Additional Services	LAB	0	0	0	0	100	4800	0	0
		DIR	0	0	0	0	0	0	0	0
		REM	0	0	0	0	0	390	0	0
9017	Talbots-Region									

ALL PROJECTS**PROJECT SUMMARY****(BILLING)**

Proj No/ Task No.	Project Name	Label	Current Hrs	Current Bill	JTD Hrs	JTD Bill	Budget Hrs	Budget Bill	%E	%R
00A	Architectural	LAB	0	0	0	0	0	0	0	0
00E	Engineering	LAB	0	0	0	0	0	0	0	0

THE CONTINUUM

The AutoCad Module

The AutoCad Module as outlined earlier in the scope would have to be developed in the future as part of the development process.

This module would take for input data from the spreadsheet module consisting of employee and project data.

The processing would involve the importing of this data into user-defined templates within AutoCad.

The reports would be of a similar nature to the Excel report except that the sheets would be much larger and capable of being printed on a laser plotter. These would be ideal charts for project managers to pin up on walls and to be used for visually tracking the projects.

Modularity and Levels of Sophistication

Modularity

The development of the project in modular format allows for some flexibility.

Level 1:

The graphical portion of the package, involving AutoCad, had to be dropped from the present scope and would have to be worked on in the future.

Level 2:

Within each software package, the expected output had to be refined or contracted. Again, they would have to be further extended and refinements added based on the needs of the office and the project managers.

Levels of Sophistication

The three levels indicated, suggest that software development may be terminated at any point.

Level 1:

The package at this point is a bare working model, interfacing data within some of the modules. The operator at this level would necessarily have to be the programmer, with a good understanding of the structure and the components.

Level 2:

Further refinements being added on in the next iteration, the operation of the various modules would still require the services of a fairly sophisticated user, with an above average grasp of the programs involved.

Level 3:

At this level most of the kinks in the program would have been ironed out and error trapping (the ability of the software to anticipate and recover from user errors)

would have been built in. The user at this juncture could be a lay person, unfamiliar with both hardware and software, but willing to learn.

To reiterate, the whole endeavor is academic to begin with, to demonstrate the involvement of computers in project management and the use of various software to achieve desired effects. With further improvements and embellishments, the complete package would be a very sophisticated tool readily accessible to all project managers, irrespective of their systems background.

THE APPENDIX

The Appendix

**The following reports are samples of output from various other modules in
Micro / MCFMS.**

Apple and Bartlett

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Balance Sheet
As of 05/31/90

Account Number	Name	Amount
101.00	Checking Account	44,114.84
102.00	Savings Account	5,000.00
104.00	Payroll Checking Account	26,002.02
105.00	Deposits	6,000.00
106.00	Investments	25,000.00
	Subtotal	106,116.86
111.00	Accts Receivable-Clients	124,368.12
115.00	Travel Advances	668.93
117.00	Prepaid Liability Ins.	5,835.63
118.00	Prepaid Insurance-Other	3,940.34
	Subtotal	134,813.02
121.00	Unbilled Services	10,559.69
151.00	Furniture and Fixtures	45,000.00
152.00	Accumulated Deprec - F&F	3,333.32-
153.00	Leasehold Improvements	10,000.00
154.00	Accumulated Amortiz-LI	166.67-
155.00	Automobiles	16,000.00
156.00	Accumulated Deprec-Auto	1,565.81-
157.00	Data Processing Equip.	6,200.00
158.00	Accum Deprec-Data Equip.	861.10-
	Subtotal	71,273.10
	Total Assets	322,762.67

----- Liabilities -----

Account Number	Name	Amount
201.00	Notes Payable-Short Term	87,500.01
211.00	Accts Payable-Consultant	81,142.40
212.00	Accts Payable-Other	12,591.49
	Subtotal	93,733.89
231.00	Salaries Payable	17,915.44
232.00	FICA Payable	74.28
233.00	Federal Withholding	2,813.51
234.00	State Withholding	1,208.31
235.00	United Way Withholding	1,068.01
236.00	Health Care Ins Withhold	80.40
237.00	401(k) Withholding	227.74-
239.00	Other Withholding	250.00
	Subtotal	23,182.21

Apple and Bartlett

Balance Sheet
As of 05/31/90

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----- Liabilities -----

Account Number	Name	Amount
	Total Liabilities	204,416.11

----- Net Worth -----

Account Number	Name	Amount
301.00	Capital	100,000.00
311.00	Prev Yrs Retained Earngs	7,000.00
312.00	Current Yrs Profit(Loss)	11,346.56
	Subtotal	18,346.56
	Total Net Worth	118,346.56
	Total Liabilities and Net Worth	322,762.67

Apple and Bartlett

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Income Statement
For the period 05/01/90 - 05/31/90

		Revenue		-- Percent of -- - Total Revenue -	
Account Number	Name	This Period	Year To-date	This Period	Year To-date
401.00	Billed Fee Revenue		199,155.12		73.19
402.00	Unbilled Revenue		10,559.69		3.88
	Subtotal		209,714.81		77.07
421.00	Reimb Consultant Revenue		42,732.02		15.70
422.00	Reimb Expense Revenue		16,985.03		6.24
	Subtotal		59,717.05		21.95
431.00	Interest Revenue		155.47		.06
432.00	Hawaii Sales and Use Tax		497.48		.18
433.00	Errors and Omission Ins.		2,027.00		.74
	Subtotal		2,679.95		.98
	Total Revenue		272,111.81		100.00

		Reimbursable Expenses		-- Percent of -- - Total Revenue -	
Account Number	Name	This Period	Year To-date	This Period	Year To-date
511.00	Structural Consultant	1,160.00	17,072.17		6.27
512.00	Mechanical Consultant	505.00	12,918.42		4.75
513.00	Electrical Consultant	1,030.00	13,102.89		4.82
514.00	Civil&Landscape Consult	210.00	335.00		.12
515.00	Other Consultants	870.00	6,150.13		2.26
	Subtotal	3,775.00	49,578.61		18.22
521.00	Travel and Lodging	135.50	8,549.01		3.14
521.01	Meals	32.00	863.80		.32
522.00	Reproductions	78.73	4,463.79		1.64
523.00	Models/Renderings/Photos	722.67	755.17		.28
524.00	Long Distance Telephone		406.04		.15
525.00	FAX Expense		47.57		.02
529.00	Misc Reimbursable Expens	65.00	1,776.64		.65
	Subtotal	1,033.90	16,862.02		6.20
	Total Reimbursables	4,808.90	66,440.63		24.42
	Revenue less Reimburs	4,808.90-	205,671.18		75.58

Income Statement
For the period 05/01/90 - 05/31/90

----- Direct Expenses ----- -- Percent of ---
- Total Revenue -

Account Number	Name	This Period	Year To-date	This Period	Year To-date
601.00	Direct Labor-Principals	5,535.00	32,709.00		12.02
602.00	Direct Labor-Employees	6,906.00	44,914.60		16.51
	Subtotal	12,441.00	77,623.60		28.53
611.00	Structural Consultant	180.00	18,626.66		6.85
612.00	Mechanical Consultant		2,380.00		.87
613.00	Electrical Consultant		2,052.13		.75
615.00	Other Consultants	950.00	16,155.00		5.94
	Subtotal	1,130.00	39,213.79		14.41
621.00	Travel and Lodging		266.64		.10
621.01	Meals		50.35		.02
622.00	Reproductions	75.00	1,343.97		.49
623.00	Models/Renderings/Photos		206.55		.08
624.00	Long Distance Telephone		459.66		.17
625.00	FAX Expense		102.42		.04
629.00	Misc Direct Expenses	63.50	543.97		.20
	Subtotal	138.50	2,973.56		1.09
	Total Direct Expenses	13,709.50	119,810.95		44.03
	Revenue less Reimb and Direct Expenses	18,518.40-	85,860.23		31.55

----- Indirect Expenses ----- -- Percent of ---
- Total Revenue -

Account Number	Name	This Period	Year To-date	This Period	Year To-date
701.00	Indirect Labor-Principals	405.00	17,592.00		6.46
702.00	Indirect Labor-Employees	1,416.00	15,364.50		5.65
703.00	Job Cost Variance	11,956.00-	13,370.57-		4.91-
	Subtotal	10,135.00-	19,585.93		7.20
721.00	Employer's FICA Tax	173.18	7,300.37		2.68
722.00	Federal Unemployment		1,033.52		.38
723.00	State Unemployment		2,177.28		.80
724.00	Workers' Compensation		1,894.79		.70
	Subtotal	173.18	12,405.96		4.56
731.00	Health Care Insurance		5,048.77		1.86
732.00	Life Insurance		4,668.97		1.72
733.00	Disability Income Insur		1,207.80		.44
736.00	Education & Seminars		3,792.50		1.39
737.00	Prof Registration & Dues		630.00		.23
	Subtotal		15,348.04		5.64
741.00	Rent		5,386.68		1.98

Apple and Bartlett

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Income Statement
For the period 05/01/90 - 05/31/90

		Indirect Expenses		Percent of Total Revenue	
Account Number	Name	This Period	Year To-date	This Period	Year To-date
742.00	Utilities		1,415.52		.52
743.00	Office Suppl/Periodicals		1,305.82		.48
744.00	Telephone		1,796.64		.66
745.00	Postage/Ship/Delivery		580.96		.21
746.00	Equipment Rental		502.91		.18
747.00	Repairs & Maintenance		47.50		.02
748.00	Printing & Reproductions		2,476.73		.91
749.00	Other Office Expenses		290.00		.11
	Subtotal		13,802.76		5.07
751.00	Legal		1,243.33		.46
752.00	Accounting/Audit/Tax		1,300.00		.48
753.00	Data Processing		801.12		.29
754.00	Interest Expense		789.69		.29
755.00	Prof Liability Insurance		2,917.84		1.07
756.00	Other Insurance		217.90		.08
757.00	FAX Expense		97.33		.04
	Subtotal		7,367.21		2.71
761.00	Auto Gas & Oil		170.48		.06
762.00	Auto Repairs		114.90		.04
763.00	Auto Registration/Insur		131.04		.05
764.00	Travel		2,730.20		1.00
765.00	Hotels & Meals		1,778.93		.65
	Subtotal		4,925.55		1.81
771.00	Deprec-Furn & Fixtures		3,333.32		1.22
772.00	Amortization-Leasehold		666.68		.25
773.00	Depreciation-Automobiles		1,238.02		.45
774.00	Depreciation-Data Equip.		688.88		.25
	Subtotal		5,926.90		2.18
791.00	Printing/Repro Recovery		1,438.13-		.53-
792.00	Misc Expenses Recovery		1,410.55-		.52-
	Subtotal		2,848.68-		1.05-
	Total Indirect Expenses	9,961.82-	76,513.67		28.12
	Total Operating Expense	8,556.58	262,765.25		96.57
	Oper. Profit / (Loss)	8,556.58-	9,346.56		3.43

Apple and Bartlett

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Income Statement
 For the period 05/01/90 - 05/31/90

- - - - - Other Revenue and Expense - - - - - -- Percent of ---
 - Total Revenue -

Account Number Name	This Period	Year To-date	This Period	Year To-date
810.00 Rent Income		2,000.00-		.73-
Total Other Rev and Exp		2,000.00-		.73-
Total Profit / (Loss)	8,556.58-	11,346.56		4.17

Apple and Bartlett

General Ledger Account Analysis
For the period 05/01/90 - 05/31/90

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Tran Ref Type No	Date	Description	Project	Amount
101.00		Checking Account	Opening Balance	44114.84
			Closing Balance	44114.84
102.00		Savings Account	Opening Balance	5000.00
			Closing Balance	5000.00
103.00		Petty Cash	Opening Balance	
			Closing Balance	
104.00		Payroll Checking Account	Opening Balance	26002.02
			Closing Balance	26002.02
105.00		Deposits	Opening Balance	6000.00
			Closing Balance	6000.00
106.00		Investments	Opening Balance	25000.00
			Closing Balance	25000.00
111.00		Accts Receivable-Clients	Opening Balance	124368.12
			Closing Balance	124368.12
114.00		Notes Receivable	Opening Balance	
			Closing Balance	
115.00		Travel Advances	Opening Balance	1423.60
EX 00002	05/12/90	Expense Reports	Automatic Entry	754.67-
			Closing Balance	668.93
117.00		Prepaid Liability Ins.	Opening Balance	5835.63
			Closing Balance	5835.63
118.00		Prepaid Insurance-Other	Opening Balance	3940.34
			Closing Balance	3940.34
121.00		Unbilled Services	Opening Balance	10559.69
			Closing Balance	10559.69

Apple and Bartlett
File Reconciliation Report
As of 05/31/90

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	Chart of Accounts File	Project File	Accounts Receivable File	Reconciliation Difference
Y-T-D Revenue:	272111.81	272111.81		
Y-T-D Direct & Reimb Exp:	186251.58	186251.58		
Y-T-D Indirect Expenses:	76513.67	76513.67		
Accounts Receivable:	124368.12		124368.12	
Unbilled Services:	10559.69	10559.69		

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Cash Journal
For the period 01/01/90 - 05/31/90

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Bank Code 001 Checking Account
Account Number 101.00 Checking Account

Receipts for 001

Voucher No.	Date	Source	Description	Inv No	Amount	Project	Task	Account Number
00001	01/01/90	Deposit	rent income-Jan		500.00			810.00
00002	02/26/90	Deposit	partial payment	00101	10000.00	08905.00		111.00
			payment	00103	5283.54	09001.00		111.00
			payment	00107	802.50	09004.00		111.00
			partial payment	00108	2000.00	09007.00		111.00
			partial payment	00109	2467.50	09009.00		111.00
			payment	00110	2677.95	09010.00		111.00
			payment	00111	1054.40	09013.00		111.00
			rent income		500.00			810.00
			Voucher Total		24785.89			
00003	03/31/90	Deposit	COC/City Hall	00112	12318.50	08905.00		111.00
			STLEA/Govt Cntr	00104	7949.98	09002.00		111.00
			GNHP/Music Cntr	00118	613.99	09004.00		111.00
			CAS/CAS Res	00108	309.98	09007.00		111.00
			CAS/CAS Res	00119	2000.00	09007.00		111.00
			PIT/ABC Plaza	00120	8940.00	09009.00		111.00
			SCDG/Dance Cntr	00121	4000.00	09010.00		111.00
			PAISD/W.Glen El	00122	10482.01	09013.00		111.00
			revolving loan		30000.00			201.00
			rent income		500.00			810.00
			Voucher Total		77114.46			
00004	04/30/90	Deposit	payment	00101	2098.67	08905.00		111.00
			payment	00112	4066.71	08905.00		111.00
			partial payment	00123	6000.00	08905.00		111.00
			payment	00102	2419.91	08915.00		111.00
			payment	00114	5178.69	09001.00		111.00
			payment	00115	9576.68	09002.00		111.00
			payment	00126	9313.68	09002.00		111.00
			payment	00129	2734.12	09004.00		111.00
			payment	00130	7177.54	09007.00		111.00
			partial payment	00131	5000.00	09009.00		111.00
			payment	00121	950.00	09010.00		111.00
			partial payment	00132	4000.00	09010.00		111.00
			payment	00133	7767.65	09013.00		111.00
			revolving loan		30000.00			201.00

Apple and Bartlett

Vendor List

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Vendor Number	Name	Cons. 1099		Year-to-Date Billed	Year-to-Date Paid
00100	Speedy Blueprint ATTN: Frank Smith 800 Boylston St. Boston, MA 02118	N	N	6063.42	1029.76
00101	Fresh Pond Travel 124 Alewife Brook Parkway Cambridge, MA 02140	N	N	6889.96	1500.00
00102	New England Telephone 5 Winslow Street Arlington, MA 02174-3021	N	N	2894.06	1505.94
00103	Federal Express P.O. Box 727 Memphis, TN 38194-4637	N	N	807.00	529.50
00104	Staples Office Equipment and Supplies 1300 Nonnantum Road Watertown, MA 02172	N	N	607.44	105.19
00200	The Sullivan Group Mechanical and Electrical Engineers 47 State Park Rd. Austin, TX 78744	Y	N	24928.44	3200.00
00201	Atlas Structural Engineers Mission Professional Building 3700 Delores St. San Francisco, CA 94110	Y	N	30923.83	3200.00
00202	Terraform, Incorporated Landscape Architects 3120 Old Orchard Ct. Atlanta, GA 30338	Y	N	9985.13	1150.00
00203	John Delvecchio and Associates Licensed Land Surveyors 451 Deer Park Lane Dover, DE 19902 Fed. Tax ID: 021-45-7854	Y	Y	4735.00	100.00
00204	Joseph Smith, P.E. Environmental Consultant 234 Northwest Pkwy Minneapolis, MN 55121 Fed. Tax ID: 745-85-6526	Y	Y	3125.00	
Totals				90959.28	12320.39

Chart of Accounts List

Account Number	Name
101.00	Checking Account
102.00	Savings Account
103.00	Petty Cash
104.00	Payroll Checking Account
105.00	Deposits
106.00	Investments
111.00	Accts Receivable-Clients
114.00	Notes Receivable
115.00	Travel Advances
117.00	Prepaid Liability Ins.
118.00	Prepaid Insurance-Other
121.00	Unbilled Services
151.00	Furniture and Fixtures
152.00	Accumulated Deprec - F&F
153.00	Leasehold Improvements
154.00	Accumulated Amortiz-LI
155.00	Automobiles
156.00	Accumulated Deprec-Auto
157.00	Data Processing Equip.
158.00	Accum Deprec-Data Equip.
201.00	Notes Payable-Short Term
211.00	Accts Payable-Consultant
212.00	Accts Payable-Other
221.00	Deposits on Documents
231.00	Salaries Payable
232.00	FICA Payable
233.00	Federal Withholding
234.00	State Withholding
235.00	United Way Withholding
236.00	Health Care Ins Withhold
237.00	401(k) Withholding
239.00	Other Withholding
251.00	Notes Payable-Long Term
301.00	Capital
311.00	Prev Yrs Retained Earnngs
312.00	Current Yrs Profit(Loss)
401.00	Billed Fee Revenue
402.00	Unbilled Revenue
421.00	Reimb Consultant Revenue
422.00	Reimb Expense Revenue
431.00	Interest Revenue
432.00	Hawaii Sales and Use Tax
433.00	Errors and Omission Ins.
511.00	Structural Consultant
512.00	Mechanical Consultant
513.00	Electrical Consultant
514.00	Civil&Landscape Consult
515.00	Other Consultants
521.00	Travel and Lodging
521.01	Meals
522.00	Reproductions
523.00	Models/Renderings/Photos

Apple and Bartlett
A/P Liability Code List

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A/P Code	Description	G/L Account
001	A/P Trade Liability	212.00
002	A/P Consultant Liability	211.00

** End of Report - 2 A/P Codes Listed **

Apple and Bartlett
 Accounts Payable Cash Journal
 For the period 01/01/90 - 05/31/90

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 Bank Code 001 Checking Account
 Account Number 101.00 Checking Account

Disbursements for 001

Check No.	Date	Payee	Description	Amount	Account Number
00001	01/29/90	New England Telephon	A/P Disb Vchr 00001	211.50	212.00
00002	01/29/90	Federal Express	A/P Disb Vchr 00004	80.00	212.00
00003	01/29/90	Staples	A/P Disb Vchr 00005	58.25	212.00
00004	01/29/90	The Sullivan Group	A/P Disb Vchr 00007	1200.00	211.00
00005	01/29/90	Atlas Structural Eng	A/P Disb Vchr 00006	1000.00	211.00
00006	02/28/90	Speedy Blueprint	A/P Disb Vchr 00003	400.00	212.00
00007	02/28/90	Fresh Pond Travel	A/P Disb Vchr 00002	400.00	212.00
00008	02/28/90	New England Telephon	A/P Disb Vchr 00001	178.38	212.00
00009	02/28/90	Federal Express	A/P Disb Vchr 00014	106.00	212.00
00010	02/28/90	The Sullivan Group	A/P Disb Vchr 00007	500.00	211.00
00011	02/28/90	Terraform, Incorpora	A/P Disb Vchr 00008	100.00	211.00
00012	02/28/90	John Delvecchio and	A/P Disb Vchr 00011	100.00	211.00
00013	03/31/90	Speedy Blueprint	A/P Disb Vchr 00003	129.76	212.00
			A/P Disb Vchr 00013	500.00	212.00
			Check Total	629.76	

Accounts Payable Voucher List with Aging
As of 11/14/92

Vchr No.	Vendor Ref.	Invoice Date	Payment Date	Balance	Current	31-60	Over 60
00100 Speedy Blueprint							
00013	88142	02/26/90	12/31/99	3152.27			3152.27
00025	88253	03/26/90	04/29/90	1076.14			1076.14
00037	88253	04/26/90	05/29/90	651.52			651.52
00047	88253	05/01/90	05/12/90	153.73			153.73
			Totals	5033.66			5033.66
00101 Fresh Pond Travel							
00002	322-7899	01/29/90	12/31/99	49.04			49.04
00018	322-8613	02/29/90	12/31/99	578.00			578.00
00030	322-9007	03/25/90	04/29/90	2630.85			2630.85
00042	322-9007	04/25/90	05/29/90	1996.57			1996.57
00048	-	05/01/90	05/12/90	135.50			135.50
			Totals	5389.96			5389.96
00102 New England Telephone							
00024	492-4410	03/16/90	04/14/90	748.57			748.57
00036	492-4410	04/16/90	05/14/90	639.55			639.55
			Totals	1388.12			1388.12
00103 Federal Express							
00028	*6672532	03/25/90	04/08/90	75.50			75.50
00038	*3927237	04/11/90	04/18/90	67.50			67.50
00039	*4539331	04/18/90	04/25/90	28.00			28.00
00040	*6672532	04/25/90	05/08/90	28.00			28.00
00044	*4539331	04/30/90	05/12/90	78.50			78.50
			Totals	277.50			277.50
00104 Staples							
00029	66-78-14	03/21/90	04/29/90	236.77			236.77
00041	66-78-14	04/21/90	04/29/90	215.48			215.48
00043	66-78-14	05/02/90	05/12/90	50.00			50.00
			Totals	502.25			502.25
00200 The Sullivan Group							
00007	87245.01	01/15/90	12/31/99	1160.00			1160.00
00019	87245.02	02/12/90	12/31/99	7113.44			7113.44
00032	87245.03	04/18/90	05/15/90	11710.00			11710.00
00045	87245.03	05/01/90	05/12/90	1745.00			1745.00
			Totals	21728.44			21728.44
00201 Atlas Structural Engineers							
00006	88005.00	01/22/90	12/31/99	1895.00			1895.00
00020	88005.00	02/21/90	12/31/99	8076.66			8076.66
00031	88005.	04/21/90	05/20/90	17532.17			17532.17
00046	88005.	05/12/90	05/12/90	220.00			220.00
			Totals	27723.83			27723.83
00202 Terraform, Incorporated							
00010	ABC-8801	01/27/90	12/31/99	425.00			425.00
00021	ICS-6123	02/28/90	12/31/99	4230.13			4230.13

Apple and Bartlett
 Accounts Receivable Ledger
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Project	Name/Principal/Proj Mgr	Date	Total	Fees	Reimb.	Tax	Interest	Other
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08905.00 City Hall / Apple / Gray

Invoice 00101

01/29/90	12098.67	10099.00	1999.67					
R 02/26/90	10000.00-							
R 04/30/90	2098.67-							
Balance	.00							

Invoice 00112

02/26/90	16385.21	12318.50	4066.71					
R 03/31/90	12318.50-							
R 04/30/90	4066.71-							
Balance	.00							

Invoice 00123

03/31/90	12426.31	11723.50	610.33					92.48
R 04/30/90	6000.00-							
Balance	6426.31							

Invoice 00134

04/30/90	10780.62	8707.50	2073.12					
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Proj. Totals 17206.93

09001.00 University Library / Apple / Stone

Invoice 00103

01/29/90	4304.25	3864.25	440.00					
R 02/26/90	5283.54-							
Balance	979.29-							

Invoice 00114

02/26/90	5178.69	4459.00	719.69					
R 04/30/90	5178.69-							
Balance	.00							

Invoice 00125

03/31/90	8221.53	6872.29	1286.25					62.99
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Invoice 00136

04/30/90	2651.10	1119.20	1531.90					
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Proj. Totals 9893.34

09004.00 GNH Music Center / Apple / Lambert

Invoice 00107

01/29/90	802.50	802.50						
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Apple and Bartlett
Aged Accounts Receivable
As of 11/14/92

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Project Inv.	Name/Principal/Proj Date	Mgr Total	Current	----- 31-60	Past Due 61-90	----- Over 90
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Principal: Apple

08905.00 City Hall / Apple / Gray

00123	03/31/90	6426.31				6426.31
00134	04/30/90	10780.62				10780.62
	Totals	17206.93				17206.93

Last receipt - 6000.00 on 04/30/90 for invoice dated 03/31/90

09001.00 University Library / Apple / Stone

00103	01/29/90	979.29-				979.29-
00125	03/31/90	8221.53				8221.53
00136	04/30/90	2651.10				2651.10
	Totals	9893.34				9893.34

Last receipt - 5178.69 on 04/30/90 for invoice dated 02/26/90

09004.00 GNH Music Center / Apple / Lambert

00138	04/30/90	620.47				620.47
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Last receipt - 2734.12 on 04/30/90 for invoice dated 03/31/90

09007.00 CAS Residence / Apple / Stone

00119	02/26/90	252.59				252.59
00139	04/30/90	630.35				630.35
	Totals	882.94				882.94

Last receipt - 7177.54 on 04/30/90 for invoice dated 03/31/90

09009.00 ABC Plaza Study / Apple / Gray

00131	03/31/90	4534.00				4534.00
00140	04/30/90	512.00				512.00
	Totals	5046.00				5046.00

Last receipt - 5000.00 on 04/30/90 for invoice dated 03/31/90

09013.00 West Glen Elem Addition / Apple / Gray

00142	04/30/90	1544.00				1544.00
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Labor Code Table No. 1 Standard labor rates

Code	Description	Rate
1	Predesign	40.00
2	Site Analysis	45.00
3	Schematic Design	75.00
4	Design Develop	80.00
5	Construct Docs	60.00
6	Bid/Negotiate	70.00
7	Construct Admin	55.00
8	Post-Construct	45.00
9	Sup. Services	50.00

Labor Code Table No. 2 Government labor

Code	Description	Rate
7	Construct Admin.	55.00
9	Sup. Services	50.00
B	Bid/Negotiate	70.00
D	Design/Plan/Spec	75.00
P	Prelim. Services	60.00
R	Study/Report	75.00
V	Survey	40.00

** End of Report **

Apple and Bartlett
Billing Tables List - Category

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Category Table No. 1 Standard categories

Category	1	Principal	\$ 80.00
00001		Apple, William	
00002		Bartlett, James	
Category	2	Project Manager	\$ 70.00
00101		Gray, Brenda	
Category	3	Architect	\$ 50.00
00201		Stone, Richard	
00202		Lambert, Roberta	
00203		MacKenzie, Jonathan	
Category	4	Draftsperson	\$ 25.00
00301		Spencer, Wilbur	
00302		Davisson, Emily	
Category	5	Administrative	\$ 30.00
00901		Smithfield, Joanne	

Category Table No. 2 Government category

Category	1	Senior Designer	\$ 90.00
00001		Apple, William	
00002		Bartlett, James	
00101		Gray, Brenda	
Category	2	Designer	\$ 75.00
00201		Stone, Richard	
00202		Lambert, Roberta	
00203		MacKenzie, Jonathan	
Category	3	Technician	\$ 60.00
00302		Davisson, Emily	
00901		Smithfield, Joanne	
Category	4	Draftsperson	\$ 45.00
00301		Spencer, Wilbur	

** End of Report **

Apple and Bartlett
Billing Tables List - Rate

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Rate Table No. 1 Standard rates

Employee Number	Name	Rate
00001	Apple, William	75.00
00002	Bartlett, James	75.00
00101	Gray, Brenda	65.00
00201	Stone, Richard	50.00
00202	Lambert, Roberta	50.00
00203	MacKenzie, Jonathan	50.00
00301	Spencer, Wilbur	25.00
00302	Davisson, Emily	25.00
00901	Smithfield, Joanne	20.00

Rate Table No. 2 Government contracts

Employee Number	Name	Rate
00001	Apple, William	85.00
00002	Bartlett, James	85.00
00101	Gray, Brenda	65.00
00201	Stone, Richard	50.00
00202	Lambert, Roberta	50.00
00203	MacKenzie, Jonathan	50.00
00301	Spencer, Wilbur	35.00
00302	Davisson, Emily	35.00
00901	Smithfield, Joanne	25.00

** End of Report **

Main project 09002.00 Government Center

Settings

Allow separate billing terms for projects in group?	Y
Consolidate printing for all projects in group?	N
Post amounts to individual projects?	Y
Print group billings to date?	N
Print outstanding A/R by Group or Project?	P
Print interest by Group or Project?	P
Print sales tax by Group or Project?	P

Prior group billings

Fee	18464.76
Labor	3934.50
Consultant	15234.46
Supplemental	
Reimbursable	2207.06
Taxes	
Interest	

Project list

09002.01	Govt Center Revisions	(billing terms on file)
09002.02	Govt Center Fountain	(billing terms on file)

Billing Terms List

Project 09015.00 Seaview Wharf Condo Dev.

Addressee Seaview Wharf Residential Partnership
ATTN: Elizabeth Harrington
6 St. James Avenue
Boston, MA 02116

Always print? N
Sales tax code E&O
Interest charges:
Percentage 1.500
Grace period 30

Description Design services for construction of
condominium development. Contract 772

Print billed to date? Y
Prior bills:
Fee
Labor
Consultant
Supplement
Reimburs
Taxes
Interest

Expenses:

	Bill?	Multiplier	Print Mult?	Print Detail?
Consultant	Y	1.100	N	Y
Supplemental	Y	.....	N	Y
Reimbursable	Y	1.300	Y	Y

Labor:

Labor billing method	2	By employee rate table
Rate table	1	Standard rates
Sorting method	3	By category table
Sort table	1	Standard categories
Multiplier 1	.....	----- Employee Overrides -----
Multiplier 2	.....	Employee Rate Cat.
Multiplier 3	.....	..... ..
Show labor multipliers?	N	..... ..
OT premium multiplier	.....	..... ..
Show OT multiplier?	N	..... ..
Show labor detail?	Y	..... ..
		Flag override rates? N

Task setup:

Allow separate billing terms for individual tasks?	N
Consolidate printing for all tasks?	N
Break out posting amounts among tasks?	Y
Print outstanding A/R by Task or Project?	P
Print interest by Task or Project?	P
Print sales tax by Task or Project?	P

**** End of Report ****

Apple and Bartlett
Supplemental Billing List

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Unit: 00101 3-person Field Crew
Labels: Singular hour
Plural hours
Billing: Billing per unit 50.00
Billing line format 3
Consolidate billing detail? N
Show date on bill? Y
Show mathematics? Y
Costing: Cost per unit 0.00

=====
Unit: 00102 4-person Field Crew
Labels: Singular hour
Plural hours
Billing: Billing per unit 70.00
Billing line format 3
Consolidate billing detail? N
Show date on bill? Y
Show mathematics? Y
Costing: Cost per unit 0.00

=====
Unit: 00103 2-person field crew
Labels: Singular day
Plural days
Billing: Billing per unit 200.00
Billing line format 3
Consolidate billing detail? N
Show date on bill? Y
Show mathematics? Y
Costing: Cost per unit 0.00
=====

Apple and Bartlett
Unbilled Detail Report

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Status	Date	Lab Code/ Acct No	Description	Hours	Billing Rate	Amount
			Total Billable Labor	5.0		325.00
			Project Totals			325.00
Project 09015.00 Seaview Wharf Condo Dev.						
Task 101 Design Services						
Labor:						
B	05/12/90	A03	00001 Apple, William	12.0	75.00	900.00
B	05/12/90	A04	00001 Apple, William	10.0	75.00	750.00
B	05/12/90	A03	00101 Gray, Brenda	15.0	65.00	975.00
B	05/12/90	A04	00101 Gray, Brenda	8.0	65.00	520.00
B	05/12/90	A04	00203 MacKenzie, Jonathan	15.0	50.00	750.00
B	05/12/90	A04	00201 Stone, Richard	10.0	50.00	500.00
			Total Billable Labor	70.0		4395.00
Consultants:						
B	05/12/90	511.00	Atlas Structural Eng touchup plans			44.00
			Total Billable Consultants			44.00
			Task Totals			4439.00
			Project Totals			4439.00

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