



De La Salle University - Dasmariñas

**Job Order Monitoring System of Physical Facilities Office DLSU-D  
(JOMS-PFO)**

1998

A Special Problem  
Presented to  
the Computer Studies Department  
College of Science  
De La Salle University - Dasmariñas

In Partial Fulfillment  
of the Requirements for the Degree  
Bachelor of Science in Computer Science

By

**Del Rosario, Cecile S.**

**Peji, Ma. Cristina C.**

**Mrs. Rosanna A. Esquivel**

March 2000

05 APR 2000

**AKLATANG ENILIO AGUINALDO ARCHIVES**



**TABLE OF CONTENTS**

Title Page	i
Adviser's Recommendation Sheet	ii
Panel's Approval Sheet	iii
College Acceptance Sheet	iv
Table of Contents	v
List of Tables	ix
List of Figures	x
List of Appendices	xi
Acknowledgment	xii
Abstract	xiii
 <b>CHAPTER I INTRODUCTION</b>	
1.1 Background of the Study	1-1
1.2 Statement of the Problem	1-2
1.3 Statement of Objectives	
1.3.1 General Objective	1-4
1.3.2 Specific Objectives	1-4
1.4 Significance of the Study	1-5
1.5 Scope and Limitations of the Study	1-5
1.6 Methodology of the Study	1-6
 <b>CHAPTER II REVIEW OF RELATED LITERATURE</b>	
2.1 Conceptual Literature	
2.1.1 Information System	2-1
2.1.2 Management Information System	2-3



2.1.3	Transaction Processing System	2-4
2.1.4	Database Management System	2-4
2.2	Related Studies	2-5
<b>CHAPTER III THEORETICAL FRAMEWORK</b>		
3.1	Statement of Assumptions	3-1
3.2	Operational Definitions	
3.2.1	Definition of Terms	3-1
3.2.2	Definition of Processes	3-3
3.3	Theories Used in the Study	
3.3.1	Information System	3-5
3.3.2	Management Information System	3-5
3.3.3	Database Management System	3-6
3.3.4	Database	3-7
3.3.5	Data Flow Diagram	3-8
3.3.6	Entity Relationship Diagram	3-10
3.3.7	Normalization	3-10
3.3.8	Data Dictionary	3-11
3.3.9	Structured Query Language (SQL)	3-11
3.3.10	Visual Basic	3-12
<b>CHAPTER IV THE EXISTING SYSTEM</b>		
4.1	Description of the System	4-1
4.1.1	Receiving Job Orders	
4.1.1.1	Shop Job Order Form (SJOF)	4-3
4.1.1.2	Construction Renovation Fabrication Form (CRFF)	4-3
4.1.2	Scheduling Job Orders	4-4



<b>4.2</b>	<b>Definition of Data Capture</b>	
4.2.1	SIOP	4-5
4.2.2	CRFF	4-5
4.2.3	Daily Report	4-6
<b>4.3</b>	<b>Inputs</b>	<b>4-7</b>
<b>4.4</b>	<b>Processes</b>	<b>4-8</b>
<b>4.5</b>	<b>Files</b>	<b>4-10</b>
<b>4.6</b>	<b>Outputs</b>	<b>4-13</b>
<b>4.7</b>	<b>Data Flow Diagram</b>	<b>4-14</b>
<b>4.8</b>	<b>Problem Areas</b>	<b>4-14</b>
<b>CHAPTER V THE PROPOSED SYSTEM</b>		
<b>5.1</b>	<b>System Overview</b>	<b>5-1</b>
<b>5.2</b>	<b>System Objectives</b>	<b>5-4</b>
<b>5.3</b>	<b>Scope</b>	<b>5-5</b>
<b>5.4</b>	<b>System Justification</b>	<b>5-6</b>
<b>CHAPTER VI DESIGN</b>		
<b>6.1</b>	<b>Inputs</b>	<b>6-1</b>
<b>6.2</b>	<b>Processes</b>	<b>6-6</b>
<b>6.3</b>	<b>Files</b>	<b>6-31</b>
<b>6.4</b>	<b>Outputs</b>	<b>6-35</b>
<b>CHAPTER VII IMPLEMENTATION</b>		
<b>7.1</b>	<b>Resource Requirements</b>	
7.1.1	Software Requirements	7-1
7.1.2	Hardware Requirements	7-1
7.1.3	Human Resource Requirements	7-2

<b>7.2 Installation Plans</b>	
<b>7.2.1 System Installation</b>	<b>7-4</b>
<b>7.2.2 Training Plans</b>	<b>7-6</b>
<b>7.2.2.1 Training Schedule</b>	<b>7-6</b>
<b>7.2.3 Conversion Plans</b>	<b>7-9</b>
<b>7.2.4 Testing</b>	<b>7-10</b>
<b>CHAPTER VIII COST-BENEFIT ANALYSIS</b>	
<b>8.1 Intangible Benefits</b>	<b>8-1</b>
<b>8.2 Cost</b>	<b>8-1</b>
<b>8.3 Tangible Benefits</b>	<b>8-7</b>
<b>8.3.1 Payback Analysis</b>	<b>8-7</b>
<b>8.3.2 Profitability Index</b>	<b>8-8</b>
<b>8.3.3 Return on Investment</b>	<b>8-9</b>
<b>CHAPTER IX CONCLUSIONS AND RECOMMENDATIONS</b>	
<b>9.1 Conclusions</b>	<b>9-1</b>
<b>9.2 Recommendations</b>	<b>9-2</b>
<b>Appendices</b>	
<b>Bibliography</b>	
<b>Glossary</b>	
<b>Resource Persons</b>	





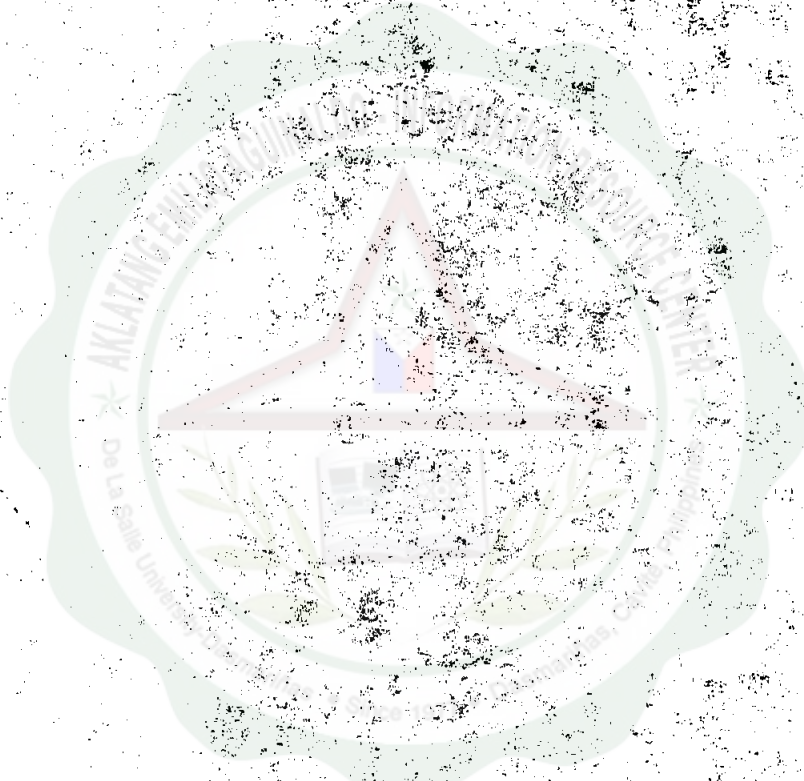
List of Tables

Table		Page
1	Proposed vs. Existing System	5-6
2	Present Computer Specifications of PFO	7-5
3	Training Schedule	7-7
4	Testing Schedule	7-14



**List of Figures**

<b>Figure</b>		<b>Page</b>
1	Spiral Methodology	1-14
2	Big-bang Testing	7-13





## List of Appendices

<b>Appendix</b>		<b>Page</b>
A	Adviser's Approval Sheet	A-1
B	Approval Sheet	B-1
C	Special Problem Clearance	C-1
D	Editor's Certification	D-1
E	Monthly Accomplishment	E-1
F	Sample Forms (Existing System)	F-1
G	DFD Existing System	G-1
H	Organizational Chart	H-1
I	Physical Facilities Office Logo	I-1
J	PFO Floor Plan	J-1
K	Site Development Plan of DLSU-D	K-1
L	DFD Proposed System	L-1
M	Normalization	M-1
N	Data Dictionary	N-1
O	Entity List	O-1
P	SQL Statements	P-1
Q	Sample Reports	Q-1
R	Entity Relationship Diagram	R-1
S	Screen Design	S-1
T	User's Manual	T-1
U	Certificate of Training	U-1
V	Certificate of Acceptance	V-1
W	Certificate of Installation	W-1
X	Curriculum Vitae	X-1





**ABSTRACT**

The Physical Facilities Office uses a manual way of processing transactions. The office uses file processing which is very tedious, prone to human errors and often results to inconsistency of data, high redundancy, poor enforcement of standards and limited data sharing. The proponents have designed a system, which will improve the old way of processing these data. Spiral methodology was used in conducting the study. Microsoft Visual Basic Version 5.0 was the programming language used in creating the software. The new system, Job Order Monitoring System (JOMS-PFO) is a combination old processes and new processes. It has provided more improvements of the former system with the aid of the software created by the proponents to help the office meet its information needs. The new system is found out to be more reliable, efficient and convenient to use than the manual transaction system. Further improvements on the system includes computing for the statistics of job orders for each section along with the corresponding percentage compared to the total job orders and producing the graphical representation of the statistics to have a better view of the total job orders.