

Abstract

Currently, in PT. MULTI KENCANA NIAGATAMA the Production Planning and Inventory Control operations are still conducted manually. Our thesis will develop a system that automates the Production Planning and Inventory Control operations. Consequently, the system will reduce unnecessary human error and in the other hand, increase work performance and productivity. Besides that, the system will also be the document data archives for further use. So in the end, the system will save company's cost and time.

The system design is based on the current system. So basically we transform the current system into an automated computer based system that able to manage and archive PDF documents for further use. The method we used in building the system is data and process modeling.

Methodology that is used in developing the system application is rapid application development, which covers phased development life cycle. Moreover, we will develop this thesis using open source system: PHP as the programming language and MYSQL as the database. We also used external library for PDF in PHP, which called FPDF.

The system that we built will increase the effectiveness and efficiency of production planning and inventory control system in PT. MULTI KENCANA NIAGATAMA and reduce any human errors in previous system. To summarize, we hope what we intend to do in this thesis can help PT. MULTI KENCANA NIAGATAMA in managing the inventory control and production process.

Key words

Production, Planning, Inventory, PPIC, PHP, MYSQL

PREFACE

At first, we would like to thank our God for His blessings and guidance so that we can finish this thesis on time with result that meet user's needs. This thesis that covers designing a Production Planning and Inventory Control system for PT. MULTI KENCANA NIAGATAMA and documenting the whole process is a mandatory to graduate and obtain Sarjana Komputer degree majoring in Computer Science.

The objective of this thesis is to implement what we had learnt in Bina Nusantara International Undergraduate Program for about 4 years in Real Time Application that used to help user achieve its goals.

We would like to express our gratitude to all the people who directly or indirectly help us to prepare this thesis:

1. The lecturers who have given us so much support throughout our study in Bina Nusantara.
2. Mr. Firdaus Alamsyah Ph.D as the former Program Director of International Undergraduate Program of Bina Nusantara and current Executive Director of Joseph Wibowo Center.
3. Mr. Richard Kumaradjaja Ph.D, as our supervisor, who has guide us and support us until the final of this thesis.
4. Mr. Baharuddin Suryadi S.Kom, M.M and Ms. Yenny S.Kom, M.M who help and facilitate our study in Bina Nusantara..
5. Parents and whole family members of the writers, who gave endless support.
6. Friends, especially our colleagues Binusian Batch 2005.

As a summary, we are hoping that this thesis could be useful for the readers and we are very welcome to any comments and critics to improve this thesis further.

Jakarta, 29 June 2005

Writers

TABLE OF CONTENTS

TABLE OF CONTENTS	ii
-------------------------	----

Chapter 1. Introduction	Error! Bookmark not defined.
1.1 Background	Error! Bookmark not defined.
1.2 Scope	Error! Bookmark not defined.
1.3 Aims and Benefits	Error! Bookmark not defined.
1.4 Structures	Error! Bookmark not defined.
Chapter 2. Theoretical Foundation.....	Error! Bookmark not defined.
2.1 System.....	Error! Bookmark not defined.
2.2 Information System.....	Error! Bookmark not defined.
2.3 Database	Error! Bookmark not defined.
2.4 Web	Error! Bookmark not defined.
2.5 Production Planning	Error! Bookmark not defined.
2.6 Inventory Control	Error! Bookmark not defined.
2.7 PHP	Error! Bookmark not defined.
2.8 MySQL.....	Error! Bookmark not defined.
Chapter 3. Analysis of Existing System.....	Error! Bookmark not defined.
3.1 Company History	Error! Bookmark not defined.
3.2 Company Organizational Structure.....	Error! Bookmark not defined.
3.3 Existing Problems	Error! Bookmark not defined.
3.4 Alternate Solution for the Problems.....	Error! Bookmark not defined.
Chapter 4. Solution Design	Error! Bookmark not defined.
4.1 Proposed System Design.....	Error! Bookmark not defined.
4.2 Data Flow Diagram.....	Error! Bookmark not defined.

4.2.1	Context Diagram.....	Error! Bookmark not defined.
4.2.2	4.2.2 Level 0 Data Flow Diagram.....	Error! Bookmark not defined.
4.3	Database Tables	Error! Bookmark not defined.
4.4	System's Menu Structure and Hierarchy Diagram	Error! Bookmark not defined.
4.4.1	Menu Structure.....	Error! Bookmark not defined.
4.4.2	Hierarchy Diagram.....	Error! Bookmark not defined.
4.5	System Data	Error! Bookmark not defined.
4.6	Use Case.....	Error! Bookmark not defined.
4.6.1	UC 1.1 Manage Inventory.....	Error! Bookmark not defined.
4.6.2	UC 1.1.1 Manage Purchase Order	Error! Bookmark not defined.
4.6.3	UC 1.1.1.1 Manage LPBB	Error! Bookmark not defined.
4.6.4	UC 1.1.1.2 Manage Barang Detail PO.....	Error! Bookmark not defined.
4.6.5	UC 1.1.2 Create Uji Bahan Baku	Error! Bookmark not defined.
4.6.6	UC 1.1.3 Create Surat Jalan	Error! Bookmark not defined.
4.6.7	UC 1.1.4 Create Pengambilan Barang	Error! Bookmark not defined.
4.6.8	UC 1.2 Manage Inventory Report.....	Error! Bookmark not defined.
4.6.9	UC 1.2.1 Kartu Stock Bahan Baku	Error! Bookmark not defined.
4.6.10	UC 1.2.2 Laporan Harian Inventory	Error! Bookmark not defined.
4.6.11	UC 1.2.3 Lembar Kontrol Penerimaan PO	Error! Bookmark not defined.
4.6.12	UC 2.1 Manage Production Planning.....	Error! Bookmark not defined.
4.6.13	UC 2.1.1 Add Planning Report	Error! Bookmark not defined.
4.6.14	UC 2.1.2 Add Production Report.....	Error! Bookmark not defined.

4.6.15 UC 2.1.2.1 Add Production Report Detail **Error! Bookmark not defined.**

Chapter 5. Production planning and inventory control IMPLEMENTATION **Error! Bookmark not defined.**

5.1	System Specification.....	Error! Bookmark not defined.
5.1.1	Development Environment	Error! Bookmark not defined.
5.1.2	Test/Staging Environment.....	Error! Bookmark not defined.
5.1.3	Source Control	Error! Bookmark not defined.
5.2	Implementation Strategy	Error! Bookmark not defined.
5.3	System Testing	Error! Bookmark not defined.
5.4	Test Plan.....	Error! Bookmark not defined.
5.4.1	TS1 Manage Purchase Order Test Scripts	Error! Bookmark not defined.
5.4.2	TS2 Manage LPBB Test Scripts	Error! Bookmark not defined.
5.4.3	TS3 Manage Barang Detail PO Test Scripts	Error! Bookmark not defined.
5.4.4	TS4 Create Uji Bahan Baku Test Scripts.	Error! Bookmark not defined.
5.4.5	TS5 Create Surat Jalan Test Scripts	Error! Bookmark not defined.
5.4.6	TS6 Create Pengambilan Barang Test Scripts	Error! Bookmark not defined.
5.4.7	TS7 Manage Inventory Report Test Scripts	Error! Bookmark not defined.
5.4.8	TS8 Kartu Stock Bahan Baku Test Scripts	Error! Bookmark not defined.
5.4.9	TS9 Laporan Harian Inventory Test Scripts	Error! Bookmark not defined.
5.4.10	TS10 Lembar Kontrol Penerimaan PO Test Scripts	Error! Bookmark not defined.
5.4.11	TS11 Manage Production Planning Test Scripts	Error! Bookmark not defined.

Chapter 6. Evaluation, Conclusion and Recommendation **Error! Bookmark not defined.**

6.1	Evaluation	Error! Bookmark not defined.
-----	------------------	-------------------------------------

6.2	Conclusion	Error! Bookmark not defined.
6.3	Recommendation	Error! Bookmark not defined.
	References	Error! Bookmark not defined.
	Appendices	Error! Bookmark not defined.