

WILAWAN ARCHANAINANT : DEVELOPMENT OF A PROTOTYPE SOFTWARE FOR  
MANAGEMENT OF PURCHASING AND INVENTORY TO SUPPORT SALE ACTIVITIES USING THE MRP II  
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This research has been done to develop a prototype software for sale activities using the Manufacturing Resource Planning (MRP II) approach. The software will enable the sale department to manage purchasing and inventory efficiently and receive correct and complete information of sale activities. The software consists of the following modules :

1. Forecasting
2. Order Entry
3. Sale Planning
4. Purchasing
5. Performance Measurement

The research starts with the analysis and design of the work procedure and the information requirement of the firm under study. This results in Data Flow Diagrams (DFDs) for the system. The principle of the design of the system is efficient Master Production Schedule (MPS) because MPS is used to manage purchasing and inventory.

After obtaining DFDs, the structures of the database and application programs are designed. Finally, the designed system is developed to be a prototype software for sale activities.

The software has been developed on a microcomputer local area network with Novell Netware as the operating system and Foxpro as the database management system.

The software has been implemented in the firm under study resulting in the following benefits :

1. Reduction of inventory.
2. More correct and complete information.

The software developed in the study may be developed further to be standard software for general sale activities. And even further to be an MRP II system software which is a complete information system for the management of manufacturing industry.