

*Appendix A : Survey Questionnaire conducted at Motorola
SemiConductor Products, Petaling Jaya.*

Survey Questionnaire

Please select only one(1) answer from this section.

1. What is your present position in your company?
 - A. Manager
 - B. Planner
 - C. Engineer/Technician
 - D. Line Supervisor
 - E. Administrative
 - F. Other(pls specify)
2. Which category of work are you presently doing?
 - A. Manufacturing
 - B. Planning
 - C. Engineering
 - D. QA
 - E. Maintenance
3. Which system do you often make use of in your daily work?
 - A. DDPR
 - B. BEST VISION
 - C. GENESIS
 - D. TRACK
 - E. CAST/MPS
 - F. OTHER(pls specify)
4. How long have you used the one you 've chosen above?
 - A. Less than 1 year
 - B. Between 1 - 2 years
 - C. More than 2 but less than 4 years
 - D. Between 4 - 6 years
 - E. More than 6 years
5. How did you know how to use this system?
 - A. Formal training was given
 - B. Read up manual on my own
 - C. Through work colleagues
 - D. Through Motorola web page
 - E. Through trial and error
6. How does the system help you out in your area of work?
 - A. I can rely on it fully
 - B. It is very useful and helpful for me
 - C. It makes my work easier and faster
 - D. It is a good system but still needs a lot of fine tuning
 - E. It doesn't really help me
7. How does your software accomplish planning function associated with generating a lot start schedule?
 - A. It will generate the start schedule itself
 - B. The start schedule has to be done manually
 - C. System indicates the details and start schedule is given by the person in charge
 - D. Management will prepare the start schedule
 - E. None of the above

8. Which is the best alternative to overcome capacity constraint lot scheduling in your planning?
- A. Add new equipment
 - B. Hire additional manpower
 - C. Increase weekly operation hours
 - D. Subcontract some subassemblies
 - E. Purchase more standby materials for production
9. Does the system monitor your production and generate early warning about completion dates that are behind schedule?
- A. Never
 - B. Always
 - C. Sometimes
 - D. Once in a long while
 - E. Not sure
10. How is equipment scheduling done in the planning system?
- A. It is generated by the computerized scheduling system
 - B. Equipment scheduling is all done manually
 - C. Both system and the person in charge will do the equipment scheduling
 - D. Only the scheduling manager does the equipment scheduling
 - E. None of the above
11. How accurate is the system in generating the forecasted orders?
- A. More than 90% accurate
 - B. Between 80 - 90% accurate
 - C. Between 70 - 79% accurate
 - D. Between 60 - 69% accurate
 - E. Less than 60% accurate
12. What is the variance of fluctuation between planned and actual order?
- A. Less than 5%
 - B. Between 5 to 10%
 - C. 11 to 20%
 - D. 21 - 30%
 - E. More than 30%
13. Why is it that the execution of planned order goes out of schedule?
- A. Plans keep changing
 - B. Insufficient time
 - C. Lack of resources
 - D. Planning is inappropriate and difficult to execute
 - E. Delay in arrival of production materials
14. In your opinion which do you think is the best way to overcome delayed orders?
- A. Increase capacity
 - B. Keep high inventory
 - C. Increase materials and equipment needed
 - D. Reschedule cycle time
 - E. Add more manpower
15. Are your demand order always delivered on time according to plan?
- A. More than 95% on time
 - B. Between 90-95% on time
 - C. Between 85-89% on time
 - D. Between 75- 84% on time
 - E. Less than 75% on time

16. How does you plant overcome sudden increase in demand order?
- Through buffer in inventory
 - Through buffer in lead time
 - Through manual rescheduling
 - Through reshuffling of customer orders
 - Through the system(DDPR) that will generate a new schedule
17. What does the planning system do with last minute cancelled order?
- System will automatically put order on hold
 - Master planner will have to do the cancellation manually
 - System will reschedule the orders
 - The cancelled order will automatically be discarded by the system
 - Master planner will inform the line to stop production
18. What does the system do with the difference between the planned and actual order
- It will net off into the DDPR for re-planning
 - It will be kept as inventory
 - It will offset against new orders
 - It will be shown in system as excess production
 - It will be put aside until further action is taken
19. Which is the most significant problem you face with the present system?
- Information is scattered all over in different systems
 - System is too tedious to follow through, it deters me from using
 - Unable to generate all data required for my area of work
 - Present system is inadequate to help me in my work
 - Other..... (pls specify)
20. How would you rate your production planning system in your plant?
- Bad
 - Poor
 - Fair
 - Good
 - Excellent

Please select the appropriate answer in the following questions.

21. Are you able to make changes to your scheduling in your present system when production has already started?
- ☐ Yes ☒ No
22. Can your system generate graphs to visually view your entire production operations?
- ☐ Yes ☒ No
23. Does the system support the scheduling of secondary support resources such as manpower, equipment and operation hours?
- ☐ Yes ☒ No
24. Can you review your production resources utilization by analyzing visual load graphs in the system?
- ☐ Yes ☒ No
25. Does it include Gantt charts which allow you to view the schedule by stages and identify potential problems?
- ☐ Yes ☒ No

26. Are you able to select areas to block or complete in the event of production going out of schedule?
☐ Yes ☒ No
27. Is your system aimed at improving on time delivery?
☐ Yes ☒ No
28. Does it help you to reduce inventory by monitoring the excess production?
☐ Yes ☒ No
29. Is your planning software able to model different kinds of production including make-to-order, make-to-stock and both?
☐ Yes ☒ No

Please rate the following questions accordingly.

1 = Strongly Disagree 2 = Disagree 3 = Fairly Agree 4 = Agree 5 = Strongly Agree

30. The present system is easy to use.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
31. The system is very reliable
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
32. Response time is fast.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
33. Information in system is always up to date.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
34. Data in system is always accurate.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
35. Screen is well designed to enable easy search.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
36. Able to retrieve information fast.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
37. Good security system.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
38. Can generate my required reports.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

39. Always able to find information I need.

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5
40. Simple to follow by just clicking on the desired selection.

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5
41. System is very useful to my area of work.

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5
42. Overall, it helps me to make my work easier and faster.

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

Please give your honest opinion in the following questions.

43. In what way do you think the present production planning system can be further improved to help you increase your work productivity?

44. What is your expectation of an ideal system that can help improve your work efficiency?

45. Do you have any other comments/opinions/ wish list to help you to make your work easier?

*Appendix B : Main Interface of Customised Production Planning
Tool*

Production Planning : Main						
File	Plan	Demand	Shipment	Capacity	Scheduling	Database Records Help
New Year Open Year Print Access Custom Users → Exit	Detail Year-To - Date Status Inventory Forecast Add User Delete User	Order → Backlog By Customer By Product	Overdue FOTD Chart	Rough Cut Check Capacity	Product	Customers → Products → Orders → Week Schedule → Plan → Plan Detail → Capacity → Shipment → Add Modify Delete

Appendix C : The Contents of the Readme.txt file

Introduction

The complexity of production planning varies according to the size of the manufacturing plant. Every production company would require a customised production planning tool to help the plant manage its own production activities and do long term planning. This tool has been developed to help manufacturing companies plan and control their production functions more efficiently so that they can meet customers' orders on time and at the same time utilised fully their scarce resources. For production to be profitable, it must be well planned ahead and properly managed even before demand orders are received. This customised production planning tool will be able to assist production managers do their planning with little disruption to their daily routines as it allows customisation which can adapt to the plant's existing production environment and planning methods. This file contains information about the use of the customised planning tool such as follows :-

- 1.0 Contents of the Production Package
- 2.0 Systems Requirements
- 3.0 Installation Guide
- 4.0 User Guide and
- 5.0 Other Information

1.0 Contents of the Production Package

The Produi.package consists of the following files and folders :

- 1.1 *.java files
- 1.2 *.class files
- 1.3 start.bat - a batch file that contains commands for program execution
- 1.4 prodsys folder which contain the DataManager.class that accesses the datastore
- 1.5 *.jar compressed files : eval.jar, jfreechart.jar for arithmetic calculation and chart display
- 1.6 PpHelp file, a MS Workshop for the creation of Help File

1.7 custfiles folder for temporary storage of forecast and inventory data

1.8 *.gif images for the main interface

2.0 Systems Requirements

- a. The Produi.package – Package that is needed for the execution of this planning tool
- b. Java Development Kit 1.2.1 – JDK1.2.1 is a development environment for writing applets and applications that conform to the Java 1.2 Core API. This product can be downloaded from <http://Java.sun.com/products/jdk/1.2/>
- c. Java Swing (JFC 1.2) – another product from JavaSoft company. It contains ready-to-use user interface components to give a look and feel, which are known as 'Swing Components'. This is packaged inside the JDK
- d. Java Database Connectivity (JDBC), which allows programs to access SQL databases from different vendors
- e. MS Access 2000, for the storage of production planning data
- f. MS Workshop which is a Help Project File that can be downloaded from <http://www.microsoft.com/products/help/>

3.0 Installation Guide

- a. Copy the contents of the Produi.Package to the C:\directory.
- b. Install the JDK 1.2.1 software. Follow the set-up instructions of the given software
- c. Install MS Access 2000. Follow the set-up instructions of the software
- d. Set-up the JDBC-ODBC connectivity. Go to Settings > Control Panel > Select ODBC Data Sources > Create Data Source Name > Trace to the Data Source Directory
- e. Install the MS Workshop into the C:\directory. Follow the set-up instructions of the given software

f. Updating the PATH and CLASSPATH variable environment

The PATH and CLASSPATH variable environment of the Autoexec.bat file will need to be updated. This action will allow the system to find the locations of related classes.

The example of PATH variable environment:-

```
PATH C:\WINDOWS\Desktop\ProdPlan\LastProduct>path=C:\jdk1.2.1\bin;  
PATH C:\WINDOWS\Desktop\ProdPlan\LastProduct\prodi.ProdMan;
```

The example of CLASSPATH variable environment:-

```
SET CLASSPATH=%classpath%;prodi/jfreechart.jar;prodi/eval.jar;  
java prodi.ProductMan;
```

4.0 User Guide

Guidelines on how to use the production planning tool is given in the help file found in Appendix D. All explanations about the functionality of this tool are listed in the help file.

Execution of the application is done by running the start.bat file found in the prodi.package.

The tool has restricted access to only authorised personnel. Users other than those with valid id and password must first be allowed entry by the software administrator before he can login to the system.

5.0 Other Information

The customised production planning tool is a research prototype that is developed for use at the manufacturing sector. Any production company can use the tool to plan their production activities. However, the administrator needs to customised to the plant's operations before use so as to fully utilised the full potential of the production planning functions. Future enhancements can be done as the components can be reused.

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*Appendix D : The Contents of the Production Planning Help file/
Guidelines*

Contents of Help File

Overview of Software Functionality

This software is a production planning software that is intended to help planners & planning personnel in a production plant plan their production schedule quarterly, monthly and weekly. Before production actually begins, a planner must check whether he has the capacity to carry out the production. The production schedule is based on customers' orders and their respective products. Products here refer to completed end products (not intermediate products) which are given ids in terms of quantities and not cost/value. In short, the software also shows the overall production performance whether the plant is under utilising its resources or production has exceeded its capacity.

The main interface shows the menu to the entire software, of course the cascading menu is hidden unless the mouse points to the particular module. Database Records show all the respective tables as they are the interfaces for the user to interact with the database. So the user just clicks at the particular menu for example, Customer and he will be able to see all the particulars about the customers and their respective orders for certain products. The user can also add, delete, modify, etc. the records and then click on a task button (event handling) and the program will capture the task, for example, Save and it will be saved in the database. If the user wants to retrieve a particular record, then the user will input the customer id and the program will use SQL to query and retrieve the particular record.

This system is divided into 2 sections, i.e.,

- a. database records for year to date from start of production till now - max 52 weeks. All manipulation of data is done through here.
- b. retrieval of database records where the user can only view the data for recent 10 weeks of production.

The system also allows some customisation to suit users' needs. The form of customisation allowed are the three production environments which are make-to-order, make-to-stock and assemble-to-stock for the user to customise according to their respective environment. Besides, the system also allows users to calculate inventory and forecast according to their own accord. Both inventory values will then be passed to the database for the calculation of the weekly production plan values.

Order

1. Demand Order is sorted by customer and by product.
2. By Customer (shows a particular customer's orders and what products he ordered together with all the other order details). The search is by Customer ID

3. By Product (shows who ordered this particular product - list of all the buyers). The search is by Product ID.
4. The deliver date in Order is the date the customer wants his goods to be delivered to him.

Customer Order

1. All the data will be entered by the user via the customer interface if user wants to add, modify or delete record.
2. Delinquent means amount outstanding to the customer, yet to be delivered to customer because production is still short.
3. The interface records of customer orders are retrieved from Customer Table after a user searches for a particular customer 's order up to date.
4. A prompt requires user to enter the customer code to search the particular customer orders up to date.
5. This prompt requires user to enter the customer code to search the particular customer orders and what is still overdue to them up to date.
6. The customer code and name are generated by the system after the customer's prompt for ID.
7. When user enter customer code and click ok, this leads to the Customer interface with all the records that show this particular customer code.
8. Delinquent means outstanding orders that are not yet delivered to the customers.

Product Order

1. The Product order table shows all the records of this particular product code and who are the customers that order this product.
2. The product code and name will be automatically generated by the system.
3. When the user enters product code and click ok, this leads to the product interface with all the records that show this particular product code.
4. Product shows the list of products, their IDs and product names produced by the factory and additional new products
5. A prompt requires user to enter the product code to search the year to date production for a particular product

Rough Cut

Rough Cut refers to calculating the capacity that is available for the week so that production can proceed if there is enough capacity (e.g. manpower and machines). If there isn't enough resources, the software will indicate that the factory must then add more resources.

FOTD

FOTD refers to Factory-On-Time Delivery which is to show how efficient the plant is in meeting the orders of customers so that they can deliver the goods according to the dates required by the customers. The data will then translate into a chart to show the management at a glance whether they are meeting the customers' orders on time. As for the graph, it is plotted by the week against the Total quantity produced respectively for plan and yield. This is dynamic because the graph is plotted as the weeks increases from week 1 to week 52. If production is now only 25 weeks, then it will show up to 25 weeks for now. There is a print option for user to print whatever data or report they require.

1. FOTD shows total amount produced for the respective products (up to 10). Usually a factory only produces up to about 5 end-products.
2. Column Plan refer to quantity to be produced but because of factory downtime, the Yield amt is less then Plan therefore leaving a $\Delta = \text{Plan} - \text{Yield}$ (system will calculate this)
3. The Plan quantity will be fetched from Plan table which is the Actual Amount Plan. The Yield will be entered by the user and Δ will be calculated by the system.
4. The Total is to be calculated by adding the Total Plan, Total Yield and Total Δ vertically for all the weeks.

YTD

1. YTD is year-to-date. This shows total amount produced for the respective products up to date.
2. The YTD graph is plotted by the week against the Total quantity produced respectively for plan and actual. This is dynamic because the graph is plotted as the weeks increases from week 1 to week 52. If production is now only 25 weeks, then it will show up to 25 wks for now.
3. Column Plan ref to quantity to be produced but because of factory downtime, the Actual Yield amount is less then Plan therefore leaving a $\Delta = \text{Plan} - \text{Actual}$. The system must calculate this.
4. The Total is to be calculated by adding the Total Plan, Total Yield and Total Δ vertically for all the weeks.

Plan Detail

Plan detail is the amount the factory has calculated to produce in a week after considering the total orders plus forecast amount plus backlog plus inventory.

Guidelines

A user can retrieve the detail production plan on weekly, monthly or quarterly basis for a particular product, depending on which one he chooses.

Actual Amount is to be entered by user because whatever amount that is produced by the factory, the outcome can only be known from the assembly (production) line. Assembly and planning are 2 separate sections. If both are online, then the data can be fed directly. Delta is to be calculated by the system ie plan minus actual.

Actual refers to the actual yield/output the assembly line is able to actually produce.

1. Product Code to be generated automatically when user enter the product code in the prompt
2. Month shows all the months of production from start until today.
3. Product Code to be generated automatically from Product table when user enters the product code in the prompt.
4. Quarter (3 months) shows all the quarters of production from start until today.

The Actual yield is affected by factors such as machine breakdown, employee work hours, work shifts, rejects, holidays etc. The output is usually less then the quantity planned.

1. If it can go according to plan then it is very efficient. The Total details must be system calculated/generated. Week can be extended to 56 weeks.
2. Product Code can be extended up to 10 columns(assuming there are 10 products)
3. Total Stock = Inventory + Forecast
4. Actual Sale = Backlog + Demand
5. Actual Amount Plan = Actual Sale - Total Stock + 10% of (Actual Sale - Total Stock) : (round to whole no.)

Example : Total Stock = 100, Actual Sale = 125

$$\begin{aligned}\text{Actual Amt Plan} &= (125-100) + 0.1(125-100) \\ &= 25 + 2.5 \\ &= 27.5 \\ &= 28 \text{ (round to whole no.)}\end{aligned}$$

6. All calculations are already programmed inside the software.
7. 1 year = 4 quarters ; 1 quarter = 3 months ; 1 month = 4 weeks
8. Monthly Record :
 - a. Calculation is the same except that 4 weeks add up to 1 month
9. Quarterly Record:
 - a. Calculation is the same except that 3 months add up to 1 quarter of a year.

Production Plan

The production plan shows only the production year ID, production week and description of the weekly plan. It is the actual production weekly plan for the whole plant within the same production year. However it does not contain the details of how to derive the actual plan figure but merely shows the plan through out the whole production year. The actual plan calculation is shown inside the plan detail table

Capacity

1. Week can be extended to 52 weeks in a year.
2. No of machines, Manpower & Operation Shifts will be filled by user but
3. Capacity = No of machines(a) x Manpower(b) x Operation Shifts(c) { system will calculate }

Example : Capacity = $2 * 10 * 5 = 100$

1. Actual refers to the TOTAL Actual Yield regardless of the products. It can be retrieved from YTD Record. Rough cut is for all the products. The chart is plotted for the sum total of the products for each week It is NOT for an individual product. Week can be extended to 52 weeks.
2. Available (quantity available) is derived from Rough Cut Record – capacity (units of output per wk)
3. Actual (quantity needed) is derived from Plan Record. – Total Actual Yield
4. Delta = Available - Actual
5. % Capacity Utilized = actual/available x 100%
6. Chart is obtain by plotting available and actual every week starting from the start date of production.
7. Verify Capacity is denoted by E for excess, F for full or S for shortage.
If % Capacity Utilized is < 100% , then system denotes E (excess)
in Verify Capacity , if 100% system denotes F (full) ,
if > 100% system denotes S (short).
8. The chart is plotted on weekly basis i.e. starting from week 1 which is extended until present week. Maximum is 52 weeks in a year. Recent weeks 1-10 changes dynamically as time and production goes on

Scheduling

1. The Product Schedule interface shows the schedule for the weekly production of whatever that is going to be produced by the factory. This is based on the Actual Amount Plan. The data is fetched from the Plan Record Table
2. It allows user to look at the weekly schedule (how much to produce) for production for the current 10 weeks for all the particular product code.

3. The table shows from the start week of production until future(maximum 52 weeks).

Backlog

1. Backlog actually refers to the factory inability to produce according to plan, so this will lead to delay in delivery to customer thus there is delinquent in customers' orders. This backlog is not derived from the delinquent column in order table. Once the backlog is cleared there will be no delinquent in customer order. Backlog shows all those products that are behind schedule in the respective weeks.
2. Backlog is Plan minus the actual Yield. Backlog is derived from YTD minus Delta. Week can be extended to 52 weeks i.e. maximum 1 year production.
3. The backlog interface is to allow user to look at the weekly backlog in production for the current 10 weeks for all the products.

Example : For the 1st week of production, Backlog = 0.

Assuming Actual Amount Plan = 50 for week1. At the end of 1st week, suppose the yield is 45, that means. $\Delta = 50 - 45 = 5$. This delta will become the backlog of 2nd week i.e. in Week 2, Backlog = 5. The delta for the present week will become the backlog for the following week. If there is no delta, there will not be any backlog for the next week i.e. backlog = 0 quantity.

4. The interface shows recent 10 weeks of production unlike the table shows all from the start week of production until future date (maximum 52 weeks).

Example : Production from start till now is already 28 weeks, so this interface will show only from week 19 to week 28 (instead of week 1- 10 above) but if user wants to see all 28 weeks and more then he must click on backlog record to see all the 28 weeks. Week 1-10 above changes dynamically as time and production goes on.

Shipment

1. This interface is to show customer those goods ordered have been delivered and shipped on the date they expect to be delivered to them.
However, not all the goods may have been delivered on time so there will be overdue goods that will be delivered later because the factory cannot keep-up with production.
2. User will have to enter all these records and the system will grab the records and passed them to the database.
3. The delivery date is the actual date of delivery. It may not coincide with the

expected delivery date thus resulting in a delay which is overdue.

4. Delinquent is quantity ordered minus quantity delivered.

Overdue

1. This interface is to show a particular customer those goods ordered have been delivered and shipped on the date they expect to be delivered to him. However, not all the goods may have been delivered on time so there will be overdue goods that will be delivered later because the factory cannot keep up with production.
2. User will be prompted to give customer code. All the records that belong to this code will be retrieved from Shipment Table and shown in overdue interface.

Production Year

1. The new production year can start at any date not just Jan 1st. So if user clicks on New there will be a warning sign to show that it is going to be the start of a new production year and therefore everything starts afresh without any records.
2. However, the old production year records still maintain in the database for the purpose of reference. The user should key in production year dates from when to when.
3. This production date is done only once for the whole year of production unless the user clicks on New.

Database

This system uses a relational database, Access 2000. There are 8 tables inside the database with their respective fields. Interfaces are provided for the user to enter records into the table and the program will capture the data and pass them on to the database in Access. All modifications can also be done here. The number of columns (maximum 52 weeks in a year) and rows in the table are expandable as the number of records grow. The number of tables are minimised so as to increase performance and reduce data storage space. All fields are stored values. Derived values are not stored. However, they will still be shown in the interfaces. The tables are related through primary and foreign keys to the relational tables.

To modify a record:

1. Click on the Database Record example, Customer
2. When the prompt pop up, click Modify Record
3. A prompt should then be given to enter the Customer Code
4. Then all the records belonging to this particular customer will appear
5. Do whatever modification to the record

6. Click update.

These steps also apply to adding and deleting records. This is the same through out all the modules inside the Database Records.

Customisation

The factory plans production according to mainly 3 different ways :

- a. Make-to-order i.e. if customers order goods then there will production.

The detail plan > Actual Amount Plan formula = (Actual Sale - Total Stock) + 10%(Actual Sale - Total Stock)

- b. Make-to-stock formula = (Actual Sale - Total Stock) + 25%(Demand)

- c. Assemble-to-order formula = (Actual Sale - Total Stock) + 15%(Inventory Balance)

So a factory can choose only 1 from the 3 production environments. Before production begins, the user must decide which environment to pick for the whole production year. After selecting, the user will not be allowed to change to another environment during the same production year.

User can also customise their calculation of their inventory and forecast and then their values will be passed into the database for the calculation of the production plan values. The arithmetic operators are given in the interface for users to make use when preparing the formula for calculation. The details of the calculation and their respective formulae must be provided by the user.

Login

The software has been designed to control access for different users. There are 4 categories of staff mainly manager, planner, clerk and general staff who are given different levels of access into the database. Each user will be given a user id and password for access for his or her level only. If they try to access those outside their level then the system will display a window informing them that access is denied.... please refer to your administrator. Only the administrator is allowed to set the access for the respective users and modify later.

Guidelines

The access levels are as follows :

User	Access Mode (allowed to)	Module (access allowed into)
Manager	Add, Modify, Delete	All tables + Set Environment
Planner	Add, Modify, Delete	All except Customer & Production Year
	View only	Production Year
Clerk	Add, Modify, Delete	Customer, Orders, Shipment.
	View only	Production Year
General	View only	Production Year, Customer, Orders, Shipment.