MonsoonSIM Thailand
STUDENT Manual
Business Simulation: ERP and Business Administrative
based on version 5.0 (Update 30 November 2016)
All contents is right reserved for MonsoonSIM workshop which run by MonsoonSIM Thailand

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MonsoonSIM learning methodology

Register

Lets facilitator setup game

Login to game environment

Learning to 12 modules

Experienced from game

Simulate yourself to work / learn
HOW TO JOIN GAME

If you have Game code from Facilitator
Visit this website
www.monsoonsim.com

Click drop down and choose Join a MonsoonSIM Game

Click Go

If you have registered in MonsoonSIM system, Please login first >>
Fill in your email address
(this email will be your username)

Step by Step guide

What is your email

Fill in your email address

Click Go
Fill in your Full name, Password and note for your password

Certification will be use this full name to be printed, If you have pass exam

Fill in your Full name / password

Click Go
Fill in game code which facilitator given to you
Choose your team name

Your team name will be created by facilitator
Your screen will look like this

Click on this joy stick button

Click Games as a Player

Waiting for Facilitator to start the game
If facilitator has start the game, Your screen will look like this

Click Join now!
Your screen in day 0 will be like this

- Module Bar
- Approval Tray
- Compass
- KPI Boxes
Game Scenario
3 Goods with 3 components

Components (Production BOM) = 1xFruit + 1xBox + 2xLabels
3 Retail shops + 1 Warehouse
How we run MonsoonSim game

- Start game with same conditions
- Group brainstorm and action
- Lets business runs
- See the result
- Learning from mistake/teach each others/group discussion/from others groups
- EXPERIENTIAL LEARNING
- Adapt to their role/Understanding others roles
- Understanding what Business need
Game’s Trick

need to convert this trick to real working methodology
What is game measurement? – Standard

Game will measure by using “NET PROFIT”

(\text{NET PROFIT} = \text{Trading profit} - \text{Operation Expenses})
Game measurement (Scoring Matrix) since 5.0 (as optional)
Game measurement (Scoring Matrix) since 5.0 (as optional)

Change the matrix you are like to measure
Game measurement (Scoring Matrix) since 5.0 (as optional)
Getting in to game
Team name (Virtual Company name)

Team name

Team name

Team name

Team name
How to start game
http://www.monsoonsim.com

Your game code is

XXXXX_XXXX

Choose your virtual company name
Understanding Basic Business Concept
And add on knowledge
Basic Business Concept

Sustainability
Continuity

PROFIT

Operation
Management

Business

Profitability
Transform Conventional to Strategic

STRATEGIC

CONVENTIONAL LEVEL
7Ps Marketing Mix
Value Chain

- Firm Infrastructure
- Human Resource Management
- Technology Development
- Procurement
- Inbound Logistics
- Operations
- Outbound Logistics
- Marketing And Sales
- Service

Support Activities

Primary Activities
(Motorola) Six Sigma
Quality Improvement and Problem Solving Methodology
LEAN and Kaizen(5S)

KAIZEN
(CONTINUOUS IMPROVEMENT)
IS OUR WAY OF LIFE

5S Explanation
Sort
Set in Order
Shine
Standardize
Sustain

When in doubt, move it out—Red Tag technique
A place for everything and everything in its place
Clean and inspect or Inspect through cleaning
Make up the rules, follow and enforce them
Part of daily work and it becomes a habit
PDCA : Plan Do Check Act

Typical quick planning

Longer time to resolve

Plan Do Check Act

Rapid problem resolution

Slow, thorough planning
Supply Chain ว่าด้วยพันธะพณา  K2J2PP2Mario

- ปราสาท
- สุนทร
- พี่เชิด

- ป้าอี๊ด
- ป้าชม้อย
- เจ๊แดนนี่

- ป้าสายใจ

- ป้าน้า
- ป้าภัต
- ป้าบ่าว

- ป้าภัต
- ป้าบ่าว

- ป้าประมนตร์

- ป้าภัต
- ป้าบ่าว

- ป้าประมนตร์

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## Initial Configuration

<table>
<thead>
<tr>
<th>Topic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Cash</td>
<td>3,500,000 Units</td>
</tr>
<tr>
<td>OD (Over draft)</td>
<td>2,500,000 Units 60% Interest</td>
</tr>
<tr>
<td>3 x Retail shops</td>
<td>Each shop area: 100 m²; Max Capacity 30,000 units Rental $20: per day</td>
</tr>
<tr>
<td></td>
<td>Over flow charge $60: per day</td>
</tr>
<tr>
<td>1 Warehouse</td>
<td>Area: 1000 m²; Max Capacity 300,000 units Rental $10: per day</td>
</tr>
<tr>
<td></td>
<td>Over flow charge $30: per day</td>
</tr>
<tr>
<td>Capacity per m²</td>
<td>300 units of finished goods</td>
</tr>
<tr>
<td>Topic</td>
<td>Details</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Finished good Vendors</td>
<td>D, E and F</td>
</tr>
<tr>
<td>Raw Material Vendors</td>
<td>A, B and C</td>
</tr>
<tr>
<td>Discount</td>
<td>10% if minimum at 20,000 per PO</td>
</tr>
<tr>
<td></td>
<td>20% if minimum order at 30,000 per PO</td>
</tr>
<tr>
<td>Marketing Report (cover B2C only)</td>
<td>Cost $10,000</td>
</tr>
<tr>
<td></td>
<td>Last 20 days data</td>
</tr>
<tr>
<td>Logistic</td>
<td>500 KMs : Day</td>
</tr>
<tr>
<td></td>
<td>Fixed Cost $5,000 per trip</td>
</tr>
<tr>
<td></td>
<td>Variable cost $5 per KM</td>
</tr>
</tbody>
</table>
## Initial Configuration (Con’t)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine Cost (Series 1)</td>
<td>$300,000 per Machine</td>
</tr>
<tr>
<td>Production Capacity (Series 1)</td>
<td>10,000 units : Machine : Day</td>
</tr>
<tr>
<td>Maintenance Cost</td>
<td>Periodical Order $10,000 : time</td>
</tr>
<tr>
<td></td>
<td>Single Work Order $40,000 : case</td>
</tr>
<tr>
<td></td>
<td>Predictive Sensor $15,000 : machine</td>
</tr>
<tr>
<td>HR Cost</td>
<td>Hiring $500 : Day : Staff</td>
</tr>
<tr>
<td></td>
<td>Counselling $250 : Staff</td>
</tr>
<tr>
<td></td>
<td>Dismissal $50 : Staff</td>
</tr>
<tr>
<td></td>
<td>Recruiting : $1,000 : Staff</td>
</tr>
<tr>
<td></td>
<td>Training : $1,500 : Staff</td>
</tr>
<tr>
<td></td>
<td>Transfer : $500 : Staff</td>
</tr>
</tbody>
</table>
Understanding
MonsoonSIM Interface
and rules
Day in game & condition

- The game will be forced to end in 250 days
- One day in the game can be from 15-60 seconds
- Whatever action that you have decided & approved, will take effect next business day. BTW, hasn't included processing time with related in another module
- The facilitator will able to stop and run game whenever they are needed.
USER INTERFACE

Module Bar

KPI Boxes

Compass

Approval Tray
USER INTERFACE

Module Bar

Compass

Approval TRAY

Sub Module Bar; Action or data to monitor
USER INTERFACE: COMPASS

Compass will give user a short explanation in each module/sub module bar.
Approval Tray will tell users how many transactions waiting for approval.

For example, No. 2 in red box said there are 2 waiting transactions waiting to get approval. One is PO, another one is MOVE list.
Example: Understanding about lead time

Some factor in the game is a controlled environment *

Diagram:
- Incoming demand
- Procure Raw material
- Approval of PO
- Delivery time from supplier to warehouse
- Production
- Delivery time to retail shop

Legend:
- How accuracy and fast to consider incoming demand
- Procure time varies on:
  - Calculation on Demanding
  - Policy
  - Procurement KPIs
- In game normally used 1 day in action
- Delivery time varies on:
  - Demand tank
  - Supplier disciplinary
- Production time varies on:
  - Production Capacity
  - Safety Stock
  - Forecast
  - Demand tank
  - RAW material stock
- Delivery time varies on distance:
  - 70 KMs = 1 day
  - 501 = 2 days
  - 753 = 2 days
  - 1,014 = 3 days

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Module bar

Upper row is represent module; ‘department in company’

Lower row is represent
- Related thing to be monitored
- Action in game which you are need to cater for

To be noted that Lower row will differ depends on which module are you looking at

‘Info’ will tell you about initial parameter/factors which will affect to your action/ result
Learning Concepts by MonsoonSIM Thailand

- People
- Duties
- Technology
- KPIs
- KRIs

Process
Finance module configuration

standard configuration

<table>
<thead>
<tr>
<th>Configurable Items</th>
<th>Value</th>
<th>Default</th>
<th>RunTime Edit</th>
<th>Submenu</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash - Starting (cur)</td>
<td>3500000</td>
<td>3500000</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Depreciation days</td>
<td>60</td>
<td>60</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Forex allowed</td>
<td>No</td>
<td>No</td>
<td>Y</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Interest (%) - Bank Overdraft</td>
<td>60</td>
<td>60</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Limit - Bank Overdraft (cur)</td>
<td>2500000</td>
<td>2500000</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Local currency used throughout the game</td>
<td>SGD</td>
<td>SGD</td>
<td>Y</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
## Related Terminology of Finance Module

<table>
<thead>
<tr>
<th><strong>Meaning</strong></th>
<th><strong>Cash on hand</strong></th>
<th>Money in the form of cash that a business has at a particular time. <a href="http://www.businessdictionary.com">http://www.businessdictionary.com</a></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Cash flow</strong></td>
<td>Incomings and outgoings of cash, representing the operating activities of an organization. <a href="http://www.businessdictionary.com">http://www.businessdictionary.com</a></td>
</tr>
<tr>
<td></td>
<td><strong>Balance sheet</strong></td>
<td>the statement of financial condition, it is a summary of a company's assets, liabilities, and owners' equity. Campbell R. Harvey</td>
</tr>
<tr>
<td></td>
<td><strong>Profit and Lost (Loss)</strong></td>
<td>(P/L) An account showing net profit and loss over a given period. American Heritage® Dictionary of the English Language, Fifth Edition</td>
</tr>
<tr>
<td></td>
<td><strong>Operating Expense (OPEX)</strong></td>
<td>An expense incurred in normal business operations, such as an administrative or selling expense. American Heritage® Dictionary of the English Language, Fifth Edition</td>
</tr>
<tr>
<td></td>
<td><strong>Depreciation</strong></td>
<td>1. A decrease or loss in value, as because of age, wear, or market conditions. 2. Accounting An allowance made for a loss in value of property. American Heritage® Dictionary of the English Language, Fifth Edition</td>
</tr>
</tbody>
</table>

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# Basic knowledge of Finance

<table>
<thead>
<tr>
<th>KPIs &amp; Duties</th>
<th>In the game</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <strong>Financial Status;</strong> Working Capital</td>
<td>- <strong>Financial Status;</strong> Working Capital</td>
</tr>
<tr>
<td>- <strong>Budget management;</strong> Source of Funding</td>
<td>- <strong>Budget management;</strong> Source of Funding</td>
</tr>
<tr>
<td>- Forecasting</td>
<td>- Forecasting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risks (KRI)</th>
<th>In the game</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <strong>Capital &amp; Equity</strong></td>
<td>- <strong>Capital &amp; Equity</strong></td>
</tr>
<tr>
<td>- Exchange rate</td>
<td>- Exchange rate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staff / Roles</th>
<th>In the game</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CFO - The chief financial officer</strong> or chief financial and operating officer (CFOO) is a corporate officer primarily responsible for managing the financial risks of the corporation. This officer is also responsible for financial planning and record-keeping, as well as financial reporting to higher management. In some sectors the CFO is also responsible for analysis of data. The title is equivalent to <strong>finance director (FD),</strong> a common title in the United Kingdom. The CFO typically reports to the chief executive officer and to the board of directors, and may additionally sit on the board. The CFO supervises the finance unit and is the chief financial spokesperson for the organization. The CFO reports directly to the President/Chief Executive Officer (CEO) and directly assists the Chief Operating Officer (COO) on all strategic and tactical matters as they relate to budget management, cost benefit analysis, forecasting needs and the securing of new funding.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Related to ERP</th>
<th>In the game</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FRM; Financial Resource Management</strong> The Finance Resource Management Module is an integrated Financial and Planning System. It has the capabilities of meeting all the accounting and financing needs of an organization. The real-time functionality of this module allows for better decision-making and strategic planning. This supports the following three essential components.</td>
<td></td>
</tr>
</tbody>
</table>
Finance module

**Finance**

**Accounting**

**P&L accumulated**

**Cash**

**Overhead**

**Staff count**

**Info**

---

**ACCOUNTING**

**Profit and Loss**

- Trading Account: Debit 1,000,000, Credit 0
- Sales: Debit 120,000
- Inventory: Debit 1,450,500
- Operating expenses: Debit 10,000
- Net Loss: Debit 1,000

**Balance Sheet**

- Cash/Overdraft: Debit 2,042,000
- Depreciation: Debit 0
- Fixed Assets: Debit 8,000,000
- Paid In Capital: Debit 1,450,500
- Inventory: Debit 18,000
- Net Loss / Net Profit: Debit 4,500
- Total: Debit 2,230,000, Credit 2,230,000

---

**MONSOONSIM CONFIG**

<table>
<thead>
<tr>
<th>Title</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash - Starting (cur)</td>
<td>3500000</td>
</tr>
<tr>
<td>Department Competency</td>
<td>Accounting</td>
</tr>
<tr>
<td>Department Name</td>
<td>Finance</td>
</tr>
<tr>
<td>Depreciation days</td>
<td>60</td>
</tr>
<tr>
<td>Interest (%) - Bank Overdraft</td>
<td>60</td>
</tr>
<tr>
<td>Limit - Bank Overdraft (cur)</td>
<td>2500000</td>
</tr>
</tbody>
</table>
Profit and Lost (P/L)

<table>
<thead>
<tr>
<th></th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset</td>
<td>Increase</td>
<td>Decrease</td>
</tr>
<tr>
<td>Liability</td>
<td>Decrease</td>
<td>Increase</td>
</tr>
<tr>
<td>Income/Revenue</td>
<td>Decrease</td>
<td>Increase</td>
</tr>
<tr>
<td>Expense</td>
<td>Increase</td>
<td>Decrease</td>
</tr>
<tr>
<td>Equity/Capital</td>
<td>Decrease</td>
<td>Increase</td>
</tr>
</tbody>
</table>

**Balance Sheet**
- Finished goods
  - Apple Juice
  - Orange Juice
  - Melon Juice
- Cash/Overdraft: 2,042,000
- Depreciation: 0
- Fixed Assets: 0
- Paid In Capital: 3,500,000
- Inventory: 1,453,500
- Net Loss / Net Profit: 4,500
- Total: 0,500,000

Bottom line = 0,500,000
Quick monitoring; Financial status
PURCHASING
Purchasing module configuration

standard configuration

<table>
<thead>
<tr>
<th>Configurable Items</th>
<th>Value</th>
<th>Default</th>
<th>RunTime Edit</th>
<th>Submenu</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Competency</td>
<td>Procurement Officer</td>
<td>Procurement Officer</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department Name</td>
<td>Procurement</td>
<td>Procurement</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finished Goods Vendor 1 Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Y</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Finished Goods Vendor 2 Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Y</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Finished Goods Vendor 3 Allowed</td>
<td>No</td>
<td>No</td>
<td>Y</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Raw Materials Vendor 1 Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Y</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Raw Materials Vendor 2 Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Y</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Raw Materials Vendor 3 Allowed</td>
<td>No</td>
<td>No</td>
<td>Y</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
## Related Terminology of Purchasing Module

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Procurement</strong></td>
<td>The act of obtaining or buying goods and services. The process includes preparation and processing of a demand as well as the end receipt and approval of payment.</td>
</tr>
<tr>
<td><strong>Purchasing request or requisition (PR)</strong></td>
<td>Document generated by a user department or storeroom-personnel to notify the purchasing department of items it needs to order, their quantity, and the timeframe. It may also contain the authorization to proceed with the purchase. Also called purchase request or requisition.</td>
</tr>
<tr>
<td><strong>Purchasing Order (PO)</strong></td>
<td>A buyer-generated document that authorizes a purchase transaction. When accepted by the seller, it becomes a contract binding on both parties. A purchase order sets forth the descriptions, quantities, prices, discounts, payment terms, date of performance or shipment, other associated terms and conditions, and identifies a specific seller. Also called order.</td>
</tr>
</tbody>
</table>
Purchasing Module

Which vendor are you going to buy?
- Vendor C, D or F?

What finished good are you going to buy?

What quantity you plan to buy?

Where would you like vendor to deliver to?
- Which retail shop or Warehouse
**Purchasing Module**

Which vendor are you going to buy?
- Vendor A, B or C?

What raw materials are you going to buy?
- What quantity you plan to buy?

**Vendor A Offers**:
- Box: 1.2 USD
- Straw: 1.4 USD
- Apple: 6 USD
- Orange: 8 USD
- Melon: 10 USD
- 10% off for min 20000 units
- 20% off for min 30000 units

**Vendor B Offers**:
- Box: 1.2 USD
- Straw: 1.4 USD
- Apple: 6 USD
- Orange: 8 USD
- Melon: 10 USD
- 10% off for min 20000 units
- 20% off for min 30000 units

RAW materials will always deliver to Central Warehouse, to feed production line.
Bulk discount

• Bulk discount will be discounted **Per SKU; Stock keeping Unit only** not per PO.

• Bulk discount may different, Procurement officer are need to monitor the condition before approved
COMBINE PO (Before)

Same Vendors?
Same Destination?
COMBINED PO (After)

<table>
<thead>
<tr>
<th>Type</th>
<th>ID</th>
<th>Item</th>
<th>Vendor</th>
<th>Dept</th>
<th>Amount (SGD)</th>
<th>Day Issued</th>
<th>Day Approved</th>
<th>Day Done</th>
<th>Originator</th>
<th>Status</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td>215</td>
<td>Combined Finished Goods for Seattle: Apple Juice 26000 units @ 13.7 SGD Orange Juice 21000 units @ 13.3 SGD Melon Juice 4000 units @ 19 SGD</td>
<td>PMN</td>
<td></td>
<td>721.300</td>
<td>8</td>
<td></td>
<td></td>
<td>Paramintest</td>
<td>REQUESTED</td>
<td></td>
</tr>
</tbody>
</table>

Price has been reduced, when combine PO has raise the bulk discount condition
### Purchasing Order; PO

#### PURCHASE REQUESTS

<table>
<thead>
<tr>
<th>PO #</th>
<th>Item</th>
<th>Vendor</th>
<th>Dept</th>
<th>Amount (usd)</th>
<th>Day Issued</th>
<th>Day approved</th>
<th>Day done</th>
<th>Originator</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>118175</td>
<td>Finished Goods for San Francisco: Apple Juice 2000 unit @15</td>
<td>Vendor</td>
<td>PMN</td>
<td>30000</td>
<td>7</td>
<td></td>
<td></td>
<td>Paramintara</td>
<td>REQUESTED</td>
</tr>
</tbody>
</table>

---

**Click drop down to see an options**
- Approved
- Requested
- Cancelled

---

**Click here**

---

**Click here**

---

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Once the PO has been approved, will take effect next day. The goods will delivered to destination in next day.
Quick monitoring; PO List

Procurement
PO - Approved
0
PO - Delivered
0
Retail module configuration

Standard configuration

- **About rental fee**
  - Retail shop rental fee per square meter (m²) per day is $20
  - In each branch, 100m² x $20 = $2,000 per day

- **About capacity**
  - In each branch, when the game has start will have **100 m²**
  - In each square meter (m²) able to contain **300 units of finished goods**
  - The full capacity of finished goods in each branch will be **100m² x 300 units = 30,000 units** as maximum capacity

- **About Penalty charge of overflow space**
  - If you are overflowing in capacity, the penalty charge **will be $60 per exceed square meter**
# Related Terminology of Retail Module

| Retail | A business or person that sells goods to the consumer, as opposed to a wholesaler or supplier, who normally sell their goods to another business. [http://www.businessdictionary.com](http://www.businessdictionary.com) |
| B2C   | If business that sells goods to the consumer called **“B2C”**. Opposed to business sells to business call “B2B” MonsoonSIM Thailand |
You can set price by fill in the number that you like to sell.

Average cost in the game means price of goods which offer by vendor.

Once you submit, Price will be changed in next business day.
You are able to increase or reduce 50m² per time. Approval of the PO is required.

Your currently space in square meter

Cost of rental per day basis

Make sure that you have select the right branch to reduce/increase space

Once you commit, the space and rental will refresh in the next day. Approval of the PO is required.
Quick monitoring ; Retails

How many units left in store in each type of goods with current selling price.

30,000 - 27600 = 2400 units

Can buy another 2,400 units to fill in stock which not exceed the capacity and cause of penalty charge.
Notification in Retails

Once the remain stock less until close to 20% of capacity, Game will notify you.

Once your have stock more than capacity, Game will notify you. For this case, you are overflow 46 sq.meter from maximum capacity. You will be charged for overflow per square meter per day until back to normal space.
### Marketing module configuration

#### Standard configuration

<table>
<thead>
<tr>
<th>Configurable Items</th>
<th>Value</th>
<th>Default</th>
<th>RunTime Edit</th>
<th>Submenu</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost - Marketing report (cur)</td>
<td>20000</td>
<td>20000</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Data Analytic Allowed</td>
<td>No</td>
<td>No</td>
<td>Y</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Department Competency</td>
<td>Market Analyst</td>
<td>Market Analyst</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Department Name</td>
<td>Marketing</td>
<td>Marketing</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Marketing Program 1</td>
<td>Media A</td>
<td>Media A</td>
<td>Y</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Marketing Program 2</td>
<td>Media B</td>
<td>Media B</td>
<td>Y</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Marketing Program 3</td>
<td>Media C</td>
<td>Media C</td>
<td>Y</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
## Related Terminology of Marketing Module

<table>
<thead>
<tr>
<th><strong>Marketing</strong></th>
<th>the provision of goods or services to meet customer or consumer needs</th>
</tr>
</thead>
</table>

### Marketing mix – 4Ps

A planned mix of the controllable elements of a product's marketing plan commonly termed as **4Ps: product, price, place, and promotion**.

[http://www.businessdictionary.com](http://www.businessdictionary.com)

### Return of Investment

is a **measure of profitability** of investment of each activity compare to their outcomes. For example. ROI on Marketing campaign is amount of increased in profit due to increased in sales versus the amount of money invested.

Paramintara Y.
You can choose a marketing program as you want to promote your products in location level by choosing Media A, B or C.

One of the Media will provide you the best ROI compare to the rest.

Fill in an amount value that you would like to invest in marketing per day basis. To calculate ROI, you may need to compare profitability with sales amount before and after promoted in media.
Marketing module

Once you commit, Marketing report will be ready in the next business day. Approval of PO is required.
Marketing report provides you the marketing data, by covering the date that you have purchased the report back to earlier days. For example, this report was bought in day sixteen. Report will provide data of day sixteen back to day seventh.

Comparison of **average sales** between your competitors and yourselves. Your info has been shown in (bracket).

Comparison of **average unit sold** between your competitors and yourselves. Your info has been shown in (bracket).

Comparison of **Pricing** between your competitors and yourselves. Your info has been shown in **BOLD**.

Comparison of **marketing budget** between your competitors and yourselves. Your info has been shown in (bracket).
Quick monitoring and Notification; Marketing

This is your daily marketing expense. To have a positive ROI, return, profit must be greater than this amount insignificant.

For this case, System has suspect that your ROI is negative.

In every marketing activity, CMO or marketer may need to focus on how fast of ROI if measured by finance term.
3 Forecast in MonsoonSIM

- Forecast will help user to plan for their operation match to their business objectivities by provide 3 types of forecast in next 30 days
- Each forecast will be shown when main module like Retails, B2B has been activated.
- For Currency Exchange, will be shown when ForEX has been activated in run-time parameter in FINANCE
RETAILS FORECAST

Multiply Consumption during Holiday

Based on Location
WHOLE SALES FORECAST

Based on Product

Total B2B Market Demand per Day (30 day forecast)

MonsoonSIM Session - 5.0 1st Prelive

Day

Demand (units)

0k

100k

200k

14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43
CURRENCY FORECAST

Standard configuration has set currency effect with Product#2
Warehouse & Logistic
Warehouse and Logistic module configuration
standard configuration

- **About rental fee**
  - Retails shop rental fee per square meter (m²) per day is $10
  - Warehouse size is 1000m² x $10 = $10,000 per day

- **About capacity**
  - In each branch, when the game has start will have 1,000 m²
  - In each square meter (m²) able to contain 300 units of finished goods
  - The full capacity of finished goods in warehouse will be 1,000m² x 300 units = 300,000 units as maximum capacity

- **About Penalty charge of overflow space**
  - If you are overflowing in capacity, the penalty charge *will be $30 per exceed square meter*
Warehouse and Logistic module configuration (Con’t)
standard configuration

- **About ability of move goods**
  - Each day, track in the game can travel 500 kilometers per day

- **About logistic cost**
  - Fixed cost per trip is $5,000
  - variable cost per kilometer is $5
    - For example, if distance from Central Warehouse to Branch no.1 is 512 kilometers
      - Finished goods will be delivered to Branch no.1 by 2 days
      - The total logistic cost will be $5,000 + (512 kilometers x $5) = $7,560
## Related Terminology of Warehouse and Logistic Module

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
</table>
| **Warehouse**         | physical area or building design for product storage
| **Logistic**          | coordination of production, inventory, location, timing, and transportation to achieve the best result for the company                                                                                     |
| **Stock / Inventory** | The value of materials and goods held by an organization  
(1) to support production (raw materials, subassemblies, work in process),  
(2) for support activities (repair, maintenance, consumables), or  
(3) for sale or customer service (merchandise, finished goods, spare parts).

Read more: [http://www.businessdictionary.com/definition/inventory.html#ixzz3kAj9r000](http://www.businessdictionary.com/definition/inventory.html#ixzz3kAj9r000)

| **Safety stock**      | Inventory held as buffer against mismatch between forecasted and actual consumption or demand, between expected and actual delivery time, and unforeseen emergencies. Also called reserve inventory.

[http://www.businessdictionary.com](http://www.businessdictionary.com)

| **Delivery Order; DO**| Document to show the amount / quantity of goods/material to ship from where to where. Identify who will be shipper and who will be receiver with amount, date, time.
| **Replenish**         | To fill or make complete again; add a new stock or supply to

American Heritage® Dictionary of the English Language, Fifth Edition
Once you submit, Moving request will be pending to approve in Move list. Approval of move list is require.
Warehouse & Logistic Module

Move stock, Move list, Schedule auto replenishment, Stock remaining warehouse (10d), PO list, Manage rental space, Info

Warehouse & Logistic

Click drop down to see an options Approved or Requested or Cancelled

Goods will be delivered to destination after manager has approved only.

Click here

After Delivery request has been approved. Goods will travel based on distance. You are needed to include delivery time in the process. To make sure that the goods will arrived destination with in time.
Reorder Point (ROP)
In this case, the system will monitor the stock status in the San Francisco shop. If the system found that when remain stock fall down below 2,000 units of Apple juice, they will automatically request 2,000 units from warehouse to deliver to refill stock for this shop.

The amount of goods when stock falls down versus the amount that you plan to refill depends on average sold amount, distance from Central Warehouse to your shop location. If you can manage this well, Auto replenishment will help you to reduce your workload and become your strategic planning.

Once you click next, this request will be scheduled. You will be less worry about keeping monitoring the remain stock and try to compensate stock. But approval of move list is required.
Your currently warehouse space in square meter

You are able to increase space 500m or 1000m² per time or reduce 500m² per time. Approval of the PO is required.

Cost of rental per day basis

Once you commit, the space and rental will refresh in the next day. Approval of the PO is required.
Quick monitoring ; Warehouse & Logistic

This info will tell you:
- how many moving list which already approved
- how many moving list which already approved in transition to business customers

This info will tell you remain stock of **finished goods (from supplier and your production line)** and Raw material which are in the warehouse.
B2B; Wholesales
## B2B module configuration

### Standard configuration

<table>
<thead>
<tr>
<th>Configurable Items</th>
<th>Value</th>
<th>Default</th>
<th>RunTime Edit</th>
<th>Submenu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow Bidding</td>
<td>Allow</td>
<td>Allow</td>
<td>Y</td>
<td>0</td>
</tr>
<tr>
<td>B2B Client 1 Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Y</td>
<td>2</td>
</tr>
<tr>
<td>B2B Client 2 Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Y</td>
<td>2</td>
</tr>
<tr>
<td>B2B Client 3 Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Y</td>
<td>2</td>
</tr>
<tr>
<td>B2B Client 4 Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Y</td>
<td>2</td>
</tr>
<tr>
<td>B2B Client 5 Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Y</td>
<td>2</td>
</tr>
<tr>
<td>Department Name</td>
<td>B2B</td>
<td>B2B</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Name of this department competency</td>
<td>Wholesaler</td>
<td>Wholesaler</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Starting B2B Demand per day per product</td>
<td>100000</td>
<td>100000</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
## Related Terminology of B2B Module

<table>
<thead>
<tr>
<th>Terminology</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wholesales</strong></td>
<td>The sale of goods in <strong>large quantities</strong></td>
</tr>
</tbody>
</table>
| **B2B**           | **If business that sells goods to the business** called “B2B”  
                        Opposed to business sells to customer call “B2C”  
                        MonsoonSIM Thailand                                                                                                                                                                           |
| **Sales Order**   | A seller-generated **document that authorizes sale of the specified item(s), issued after receipt of a customer's purchase order**.  
                        A sales order usually implies that there will be no additional labor or material cost incurred for the sale, except where it is used to initiate a production process.  
                        [http://www.businessdictionary.com](http://www.businessdictionary.com)                                                                                                                         |
B2B Module: DEAL

Not every deal is a good deal.

Late penalty if you are unable to deliver goods to them within the deal date.

The day that they need you to ship goods to them. The system will automatically deliver the goods to customers once you have enough stock in warehouse.

Offering details with price that they would like to purchase from you.

Click Deal! If you like to take this deal.

After this deal has been taken by you, the rest of the competitor will not be able to take this deal again. And will be recorded under Sales Order.

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# B2B Module: BID

**Show wholesale offers** | **Wholesales Sales Order list** | **Stock remaining warehouse (10d)** | **Info**
---|---|---|---

## Offers from corporate customers

<table>
<thead>
<tr>
<th>Offer No: 201204</th>
<th>Total Deal (THBXX)</th>
<th>Need Day (before)</th>
<th>Deal or Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>From ABC Co. Need 69600 units Orange Juice</td>
<td>Depends on final winning bid</td>
<td>228</td>
<td></td>
</tr>
<tr>
<td>Maximum Willing To Pay (WTP) 16.20</td>
<td>Minimum bidders 1</td>
<td>Bid announcement day 223</td>
<td>late penalty: 7000 THBXX/day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offer No: 201203</th>
<th>Total Deal (THBXX)</th>
<th>Need Day (before)</th>
<th>Deal or Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>From ABC Co. Need 66000 units Orange Juice</td>
<td>Depends on final winning bid</td>
<td>228</td>
<td></td>
</tr>
<tr>
<td>Maximum Willing To Pay (WTP) 16.40</td>
<td>Minimum bidders 2</td>
<td>Bid announcement day 223</td>
<td>late penalty: 10000 THBXX/day</td>
</tr>
</tbody>
</table>

- **WTP:** Maximum price that customer willing to pay
- **Number of bidder that required to complete bidding rule:**
- **Bid will be announced at which day., For those who offer lowest price will get this deal:**

**Click Bid! If you like to join this bidding**

**Put your bidding value here**
In this case, you remain stock of apple juice in the warehouse is not enough to fulfill this SALES ORDER. You are needed to pay a late penalty charge $6,000 per day until you able to close this issue.

BTW, Big Co., will record you as indiscipline supplier. If it happens again. In the near future, you will not able to take BIG Co. offering dial again. They will mark you in their blacklist.
Quick monitoring; B2B

This info will inform you:
- How many Sales Order which already committed to customer
- How many Sales Order that you already delivered

For this case, You have two outstanding sales order, and your delivering is zero. Seem than you may have late penalty. If you haven’t solve this ASAP.
People

Process

Duty

Technology

KPIs

KRIs

B2B (WHOLESALES)
Production
Production module configuration

standard configuration: SERIES 1 MACHINCES

- Each machine will cost $300,000
- Production capacity per machine is 10,000 units per day

About BOM; Bill Of Materials

<table>
<thead>
<tr>
<th></th>
<th>Box</th>
<th>Fruit</th>
<th>Straw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple Juice</td>
<td>1</td>
<td>1 x Apple</td>
<td>2</td>
</tr>
<tr>
<td>Orange Juice</td>
<td>1</td>
<td>1 x Orange</td>
<td>2</td>
</tr>
<tr>
<td>Melon Juice</td>
<td>1</td>
<td>1 x Melon</td>
<td>2</td>
</tr>
</tbody>
</table>

- The machine will automatically produce once RAW materials are ready in the warehouse
- The machine will able to set the priority of production by user, If no prioritize setup machine will automatically based on available RAW materials which match to BOM
# 3 Series of Machine in Standard Configurations (From v5.0)

<table>
<thead>
<tr>
<th>UPDATED</th>
<th>Max</th>
<th>Min</th>
<th>Machines Serie 1</th>
<th>Machines Serie 2</th>
<th>Machines Serie 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity (Per unit per day)</td>
<td>20,000</td>
<td>5,000</td>
<td>10,000</td>
<td>6,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Cost of Machine</td>
<td>500,000</td>
<td>100,000</td>
<td>300,000</td>
<td>200,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Machine Floor Space (m²)</td>
<td>800</td>
<td>100</td>
<td>200</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>Staff Require per Machine</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Warranty Period (Not take effect now)</td>
<td>50</td>
<td>10</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Activated</td>
<td></td>
<td></td>
<td>By Default</td>
<td>By CT's decision</td>
<td>By CT’s decision</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Runtime parameter</td>
<td>Runtime parameter</td>
<td></td>
</tr>
</tbody>
</table>

ALL CONTENTS IS RIGHT RESERVED FOR MONSOONSIM WORKSHOP WHICH RUN BY MONSOONSIM THAILAND
<table>
<thead>
<tr>
<th>Related Terminology of Production Module</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meaning</strong></td>
</tr>
<tr>
<td><strong>Production</strong></td>
</tr>
<tr>
<td><strong>BOM</strong></td>
</tr>
<tr>
<td><strong>Production</strong></td>
</tr>
<tr>
<td><strong>Production</strong></td>
</tr>
<tr>
<td><strong>OEE</strong></td>
</tr>
<tr>
<td><strong>Depreciation</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Production Module

Choose amount of Machine which you going to buy, Each one will cost you $300,000

Click 'Buy Machine' to purchase machine

Production capacity of each machine is 10,000 units per day

Click commit!, If you like to confirm this request

Approval of PO is required
Production Module

Each machine day can produced 10,000 units per day.
Production Module

Click drop down menu, and choose product order you are prefer to set.
Quick monitoring ; Production

Production may help you to reduce cost.
If co-operate with B2B selling and good Procurement, cost will reduce more and will make more margin to you

This info will inform you:
- How many machine you have
- How many active machine which operates
- Production capacity of each machine
Quick monitoring; Production

Warehouse/Logistic
- Shipment in Progress: 0
- Shipment Completed: 0

Warehouse (Los Angeles)
- Finished Good (unit)
  - Apple Juice: 39,524
  - Orange Juice: 20,000
  - Melon Juice: 0
  - Total: 59,524

Raw Material (unit)
- Box: 476
- Straw: 952
- Apple: 60,476
- Orange: 0
- Melon: 0

Total Use/Total (m2): 657 / 1,000

Daily Production by Machine

<table>
<thead>
<tr>
<th>Day</th>
<th>Machine Output (unit)</th>
<th>Apple Juice</th>
<th>Orange Juice</th>
<th>Melon Juice</th>
<th>Total units</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Machine#1 (Series A):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Machine#2 (Series A):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Machine#1 (Series A):</td>
<td>19,524</td>
<td></td>
<td></td>
<td>19,524</td>
</tr>
<tr>
<td></td>
<td>Machine#2 (Series A):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Machine#1 (Series A):</td>
<td>476</td>
<td></td>
<td></td>
<td>476</td>
</tr>
<tr>
<td></td>
<td>Machine#2 (Series A):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MRP ;
Material Requirement Planning
Manufacturing Resource Planning
### Related Terminology of MRP Module

<table>
<thead>
<tr>
<th>MRP</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Material Requirements Planning (MRP)</strong> is a production planning, scheduling, and inventory control system used to manage manufacturing processes. Most MRP systems are software-based, while it is possible to conduct MRP by hand as well.</td>
<td></td>
</tr>
<tr>
<td>An MRP system is intended to simultaneously meet three objectives:</td>
<td></td>
</tr>
<tr>
<td>• Ensure materials are available for production and products are available for delivery to customers.</td>
<td></td>
</tr>
<tr>
<td>• Maintain the lowest possible material and product levels in store = Depends on minimum stock that you plan</td>
<td></td>
</tr>
<tr>
<td>• Plan manufacturing activities, delivery schedules and purchasing activities.</td>
<td></td>
</tr>
</tbody>
</table>

https://en.wikipedia.org/wiki/Material_requirements_planning

<table>
<thead>
<tr>
<th>MRP (method)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manufacturing resource planning (MRP II)</strong> is defined as a method for the effective planning of all resources of a manufacturing company. Ideally, it addresses operational planning in units, financial planning, and has a simulation capability to answer &quot;what-if&quot; questions and extension of closed-loop MRP.</td>
<td></td>
</tr>
<tr>
<td>This is not exclusively a software function, but the management of people skills, requiring a dedication to database accuracy, and sufficient computer resources. It is a total company management concept for using human and company</td>
<td></td>
</tr>
</tbody>
</table>

https://en.wikipedia.org/wiki/Manufacturing_resource_planning
Five Brothers & Sisters of ERP

Information Integration through EC²ERP System
Question: When MRP can be run and having suggested number to procure more goods/materials? (Paramintara)

A) Demand = Supply
B) Demand > Supply
C) Supply > Demand
D) Integration with other policies
E) A+D
F) B+D
G) C+D
H) E+F+G
I) None of Above
Rules of MRP Calculation

1) Demand must greater than Supply after integration with any policies (like safety stock) when do calculation

2) MRP will calculate on that point of time, Changing period of time and Policy will have different suggest number
How MRP calculates
How MRP calculates in MonsoonSIM?

Minimum Stock Policy

Affect factors to MRP Calculation
1) Production Splits policy
2) Production Capacity
3) Remain stock in warehouse

Gross Demand
(B2B+ Retail)

How much Raw materials and finished good requires?

MonsoonSIM Thailand
BUSINESS SIMULATION

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How MRP calculates in MonsoonSIM?

Demand from B2B
on Date 17
SO#1 BIG Co. Apple Juice 20,000
SO#2 ABC Co. Apple Juice 25,000
SO#3 Main Inc. Orange Juice 25,000
SO#4 Broadway Melon Juice 30,000

Demand from Retail
on Date 17
San Francisco Apple Juice 1,500
Seattle Apple Juice 4,500
Seattle Orange Juice 2,000
Seattle Melon Juice 1,300

Minimum Stock
Apple Juice 10,000
Orange Juice 10,000
Melon Juice 10,000

Gross Demand (B2B+Retail)
Apple Juice ; 20,000 + 25,000 + 1,500 + 4,500 + 10,000 = 61,000
Orange Juice ; 25,000 + 2,000 + 10,000 = 37,500
Melon Juice ; 30,000 + 1,300 + 10,000 = 37,500

Affect factors to MRP Calculation
1) Remain stock in warehouse
2) Production Splits policy
3) Production Capacity
How MRP calculates in MonsoonSIM?

Affect factors to MRP Calculation
1) Remain stock in warehouse
2) Production Splits policy
3) Production Capacity

Gross Demand (B2B+Retail) + Safety Stock
- Apple Juice = 61,000
- Orange Juice = 37,500
- Melon Juice = 37,500

Remain stock in warehouse
- Apple >> Demand 61,000 - Remain Stock 40,000 = Still require 21,000
- Orange >> Demand 37,500 - Remain Stock 7,500 = Still require 30,000
- Melon >> Demand 37,500 - Remain Stock 17,500 = Still require 20,000

Production Capacity; 2 machines x 10,000 = 20,000 units

Production Splits

<table>
<thead>
<tr>
<th></th>
<th>Require units</th>
<th>Production 60%</th>
<th>Outsource 40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>21,000</td>
<td>12,600</td>
<td>8,400</td>
</tr>
<tr>
<td>Orange</td>
<td>30,000</td>
<td>18,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Melon</td>
<td>20,000</td>
<td>12,000</td>
<td>8,000</td>
</tr>
</tbody>
</table>
How MRP calculates in MonsoonSIM?

Affect factors to MRP Calculation
1) Remain stock in warehouse
2) Production Splits policy
3) Production Capacity

<table>
<thead>
<tr>
<th></th>
<th>Require units</th>
<th>Production 60%</th>
<th>Outsource 40%</th>
</tr>
</thead>
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<tr>
<td>Apple</td>
<td>21,000</td>
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<tr>
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<td>12,000</td>
</tr>
<tr>
<td>Melon</td>
<td>20,000</td>
<td>12,000</td>
<td>8,000</td>
</tr>
</tbody>
</table>

MRP will generate PO to prefer finished goods vendor in this amount. Based on date 17 requires

MRP will generate PO to prefer RAW material vendor by integrated with BOM and synthesis the amount like this
- Apple @1 unit x 12,600 units
- Orange @1 unit x 18,000 units
- Melon @1 unit x 12,000 units
- Box @1 unit = 42,600 boxes (12,600+18,000+12,000)
- Straw @2 units = 85,200 straws (42,600 x 2)
Set Production splits policy;
**Ratio between Produce and Outsource**
Setting this ratio portion has affected by your production capacity

Once you have set preferred vendor and Production splits. You can RUN MRP.

**Running MRP:**
MRP will help to calculate what is amount of Raw materials to be purchased and/or amount of finished goods to be purchased with matching to your policies which is Production Splits and Safety Stock
Minimum Stock

The level below which inventory should never drop.
This number is 0 only if backorders are not permitted. It is determined by calculating the estimated amount of time from the beginning of production, through the time of transit, to the point at which the product is either "on the shelf" or in the hands of the customer who ordered it. Also called minimum stock level.

http://www.businessdictionary.com

Fill in the number that you are plan to set as minimum stock.

Click commit!, If you like to confirm this setup. MRP will integrate this factors in their calculation.
People

Process

Duty

Technology

KPIs

KRIs

MRP
http://enoahisolution.com/case-studies/estone-casestudy/
Maintenance
## Related Terminology of Maintenance Module

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
</table>
| Maintenance | Activities required or undertaken to conserve as nearly, and as long, as possible the original condition of an asset or resource while compensating for normal wear and tear.  

http://www.businessdictionary.com  

In general practice has many machine maintenance concept like this  
A) Preventive maintenance: Eliminate equipment before error; like aircraft maintenance  
B) Corrective maintenance: decide to stop using, when that machine or equipment can not be use anymore  
C) Predictive maintenance: predict the issue of fail, and fix before it fail.  

MonsoonSIM Thailand                                                                                                                                                                                                                                                                                                                                 |
| OEE      | Overall Equipment Effectiveness; OEE  

hierarchy of metrics developed by Seiichi Nakajima[1] in the 1960s to evaluate how effectively a manufacturing operation is utilized.  

https://en.wikipedia.org/wiki/Overall_equipment_effectiveness                                                                                                                                                                                                                                                                                     |
| Work order | Document which manage the priority of maintenance order, Description of work require, job prodecure, parts, materials, tools requirement, Labour; Cost of labour, Failure cause, How to solve  

Work order request >>  
What to fix, Exactly problem, What is best solutions  
Where, Location of problem, which machine  
When, When to start and stop, effect to others BUs.  
Who, will take responsibility and chow to contact  
How, Maintenance procedure and effect  

MonsoonSIM Thailand
## Maintenance module configuration

### Standard configuration

<table>
<thead>
<tr>
<th>Title</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost (cur) of service - machine part #1</td>
<td>4000</td>
</tr>
<tr>
<td>Cost (cur) of service - machine part #2</td>
<td>4000</td>
</tr>
<tr>
<td>Cost (cur) of service - machine part #3</td>
<td>4000</td>
</tr>
<tr>
<td>Cost for Installation of Sensors (cur)</td>
<td>15000</td>
</tr>
<tr>
<td>Machine part #1</td>
<td>Gear</td>
</tr>
<tr>
<td>Machine part #2</td>
<td>Power supply</td>
</tr>
<tr>
<td>Machine part #3</td>
<td>Engine</td>
</tr>
<tr>
<td>Periodic Maintenance cost (cur) each session</td>
<td>10000</td>
</tr>
<tr>
<td>Sensor 1 name</td>
<td>Noise</td>
</tr>
<tr>
<td>Sensor 2 name</td>
<td>Temperature</td>
</tr>
<tr>
<td>Sensor 3 name</td>
<td>Oil Density</td>
</tr>
</tbody>
</table>
How to handle maintenance in game

- In each machine, will have 3 significant parts in each machine (Gear, Engine and Power) that will have issues (Noise, Oil Density and Temperature)

Decision on maintenance policy?
- Would you to have PREDICTIVE MAINTENANCE to help to plan for maintenance or not?
  - If YES, You would like to invest in sensors.
  - If NOT, You would not like to invest in sensors.

Decision on which work order you like to use to maintain you machine?

PERIODICAL WORK ORDER
- In every 3,5,7 days
- Cost $10,000 per time

SINGLE WORK ORDER
- Cost $4,000 per Issue
Select which machine you would like to set work order

Select the type of maintenance you intend to have

**Periodical Work order**, with this option you may need to set Frequency which has an option for every 3,5,7 days. Systems will maintenance by not concern what is cause of lower OEE. This maintenance will cost you $10,000 per term (time)

**Corrective Maintenance**, with this option you may need to investigate what is the cause of lower OEE in this machine by install sensor to tell you what is the cause, and choose the SINGLE correct maintenance work order to solve; which are Power Supply, Gear or Engine. This maintenance will cost you $4,000 per single work order, and no need to set frequency. Once you have submitted, PO will be issued and wait your team approval. (Please see next slide for how to install sensor to your machine.

Optional of Frequency (every 3/5/7 days) will be shown if you have choose Periodical Work order in previous steps

After committed, maintenance will be scheduled on frequency that you have set
To install sensors to your machines to tell you what is the cause of lowering OEE can be called **PREDICTIVE MAINTENANCE**.

For our game scenario, we have 3 significant parts in each machine (Gear, Engine, and Power) that will have issues (Noise, Oil Density, and Temperature) to lower down OEE.

Sensors will be installed once you have approved PO. And these Sensors will tell you by indicator color code. You will know your machine health in advance.

GREEN = GOOD, YELLOW = Need to fix, RED = BAD for this indicator, you may able to plan and manage maintenance which reflect to your productivity.

You are needed to set SINGLE WORK ORDER or PERIODICAL WORK ORDER!!

**INVEST IN SENSORS (DISTRIBUTED CONTROL SYSTEMS)**

Install Sensors (Distributed Control Systems) to detect early warning signs from your machines at 15000 USD on...

Select Value

Commit!

Which machine would you like to install sensors?

After committed and PO had been approved, Sensors will be installed in next business day.
## Asset Summary

<table>
<thead>
<tr>
<th>Asset</th>
<th>OEE</th>
<th>PM - Predictive</th>
<th>PM - Periodic</th>
<th>OEE chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine 1</td>
<td>97.6%</td>
<td>Gear Noise indicator:</td>
<td>No periodic setup</td>
<td>OEE (20day)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power supply-Temperature indicator:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Engine Oil Density indicator:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machine 2</td>
<td>97.6%</td>
<td>No sensors installed</td>
<td>Every 5 days (Cancel)</td>
<td>OEE (20day)</td>
</tr>
</tbody>
</table>

All contents is right reserved for MonsoonSim Workshop which run by MonsoonSim Thailand.
Quick monitoring; Maintenance

Productivity will align on Maintenance quality which able to keep OEE in high level.

Productivity also related to goods cost.
People

Process

Duty

Technology

KPIs

KRI

MAINTENANCE
HR;
Human Resource (Capital)
## Related Terminology of HR Module

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resource</td>
<td>Human resources is the set of individuals who make up the workforce of an organization, business sector, or economy. &quot;Human capital&quot; is sometimes used synonymously with human resources, although human capital typically refers to a more narrow view (i.e., the knowledge the individuals embody and can contribute to an organization). Likewise, other terms sometimes used include &quot;manpower&quot;, &quot;talent&quot;, &quot;labor&quot;, or simply &quot;people&quot;. <a href="https://en.wikipedia.org/wiki/Human_resources">https://en.wikipedia.org/wiki/Human_resources</a></td>
</tr>
<tr>
<td>Competency</td>
<td>a standardized requirement for an individual to properly perform a specific job</td>
</tr>
</tbody>
</table>
# HR module configuration

## standard configuration

<table>
<thead>
<tr>
<th>Title</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee for counselling (cur) per staff</td>
<td>250</td>
</tr>
<tr>
<td>Fee for dismissal of an employee (cur) per each day or work</td>
<td>50</td>
</tr>
<tr>
<td>Fee for recruiting (cur) per staff</td>
<td>1000</td>
</tr>
<tr>
<td>Fee for training (cur) per staff</td>
<td>1500</td>
</tr>
<tr>
<td>Fee for transferring department (cur) per staff</td>
<td>200</td>
</tr>
<tr>
<td>Starting Cost of Staff per day (cur)</td>
<td>500</td>
</tr>
</tbody>
</table>
HR Module

You are need to monitors status of your human resource in terms of number of shortfall, Issues and Competency

You can manage HR by
- Training, if their competency is low
- Counselling, if their have issue
- Transfer, once you have shortfall in other department by need to make sure that their competency can take care or relate to new position
- Dismiss, if you found that this staff unable to be leveraged, counselled or transferred.

Please check this box to staff that you like to given tem an action.
To hire staff

After you have inspected on the shortfall, and would like to hire a new one

1) Check for competency and their ability level for that job, and how many they that able to start their work. Make a selection

2) Click hire button

3) Reconfirm about this hiring,, to be noted that some of job like Retailer, You are needed to select the right location. If not, you may need to transfer them later and cost more.

After you had proceeded, PO will be automatically generated and wait for approval. And staff will start their job on date that they are committed to you.
Quick monitoring; HR
Customer Services
<table>
<thead>
<tr>
<th><strong>Related Terminology of Customer Services Module</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Customer Satisfaction</strong></th>
<th><strong>Meaning</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>a term frequently used in marketing.</td>
<td><strong>is a measure of how products and services supplied by a company meet or surpass customer expectation.</strong></td>
</tr>
<tr>
<td>Customer satisfaction is defined as &quot;the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals.&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>Purpose of customer satisfaction</strong></td>
<td>&quot;Customer satisfaction provides a leading indicator of consumer purchase intentions and loyalty.&quot;</td>
</tr>
<tr>
<td><a href="http://www.wikipedia.com">www.wikipedia.com</a></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Loyalty Business Model</strong></th>
<th><strong>Meaning</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The loyalty business model is a business model used <strong>strategic management</strong> in which company resources are employed so as to increase the loyalty of customers and other stakeholders in the expectation that corporate objectives will be met or surpassed. A typical example of this type of model is: quality of product or service leads to customer satisfaction, which leads to customer loyalty, which leads to profitability.</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.businessdictionary.com">http://www.businessdictionary.com</a></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CRM</strong></th>
<th><strong>Meaning</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A management philosophy according to which a company’s goals can be best achieved through identification and satisfaction of the customers’ stated and unstated needs and wants.</td>
<td></td>
</tr>
<tr>
<td>2. A computerized system for identifying, targeting, acquiring, and retaining the best mix of customers.</td>
<td></td>
</tr>
<tr>
<td>Customer relationship management helps in profiling prospects, understanding their needs, and in building relationships with them by providing the most suitable products and enhanced customer service. It integrates back and front office systems to create a database of customer contacts, purchases, and technical support, among other things. This database helps the company in presenting a unified face to its customers, and improve the quality of the relationship, while enabling customers to manage some information on their own.</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.businessdictionary.com">http://www.businessdictionary.com</a></td>
<td></td>
</tr>
</tbody>
</table>
## Related Terminology of Customer Services Module

<table>
<thead>
<tr>
<th>Service Delivery</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The service encounter is defined as all activities involved in the service delivery process. Some service managers use the term &quot;moment of truth&quot; to indicate that defining point in a specific service encounter where interactions are most intense.</td>
</tr>
<tr>
<td></td>
<td>The delivery of a service typically involves six factors:</td>
</tr>
<tr>
<td></td>
<td>The accountable service provider and his service suppliers (e.g. the people)</td>
</tr>
<tr>
<td></td>
<td>Equipment used to provide the service (e.g. vehicles, cash registers, technical systems, computer systems)</td>
</tr>
<tr>
<td></td>
<td>The physical facilities (e.g. buildings, parking, waiting rooms)</td>
</tr>
<tr>
<td></td>
<td>The requesting service consumer</td>
</tr>
<tr>
<td></td>
<td>Other customers at the service delivery location</td>
</tr>
<tr>
<td></td>
<td>Customer contact</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service Sales Order</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Equivalent of Sales Order but specific in services area.</td>
</tr>
<tr>
<td></td>
<td>A seller-generated document that authorizes sale of the specified item(s), issued after receipt of a customer's purchase order. A sales order usually implies that there will be no additional labor or material cost incurred for the sale, except where it is used to initiate a production process.</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.businessdictionary.com">http://www.businessdictionary.com</a></td>
</tr>
</tbody>
</table>
Customer Services module configuration

standard configuration

<table>
<thead>
<tr>
<th>Title</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department name for Service 1</td>
<td>Nutrition Consulting</td>
</tr>
<tr>
<td>Department name for Service 2</td>
<td>Franchise support</td>
</tr>
<tr>
<td>Department name for Service 3</td>
<td>Marketing support</td>
</tr>
</tbody>
</table>
Customer Services Module

Based on game, the incoming service request will be 2 type of request

**New Order ; to generate service incomes**

the B2B customer will have requested your service team to solve their problem. You may need to check for your service team availability on their need day to serve their expectation.

If you are able to take this deal, please click on **SCHEDULE** button

In this case, Big Co are need 1 resources from Nutrition consulting for 5 days and 2 resources from Marketing support for 2 days. And this deal can generate you $15,000 but you are needed to respond this request at least on date 20th, and PO needs to be approved on the same date to delivery the services of this deal and finished by day 26th
How to schedule new order request

Click here once you completed

Expected completed date

This service request may need 3 days
Complaint: to maintain their satisfaction and lower the claim from them as your operation expenses

the B2B customer; in this case is Broadway, will complain to you. In terms of you are service department, you are needed to MANAGE IT. To prevent any dissatisfied. If you has ignore them. They will respond by not given you a deal. Technically in the game, when you would like to take offers of Broadway. You are unable to deal with them.

Good to deal with customer issues and try to communicate to other departments to improve your overall services.

Click here once you completed
Customer Services Module

The process of hiring new staff is same as HR module

<table>
<thead>
<tr>
<th>Department</th>
<th>Planned</th>
<th>Total</th>
<th>Issues</th>
<th>Resigning</th>
<th>Competency</th>
<th>Shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition Consulting</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>100%</td>
<td>1</td>
</tr>
<tr>
<td>Franchise support</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>100%</td>
<td>1</td>
</tr>
<tr>
<td>Marketing support</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>100%</td>
<td>0</td>
</tr>
</tbody>
</table>
Quick monitoring; Customer Services
CUSTOMER SERVICES

- People
- Duty
- Technology
- KPIs
- KRIs
- Process
MonsoonSIM learning methodology

1. Register
2. Let's facilitator setup game
3. Login to game environment
4. Learning to 12 modules
5. Experienced from game
6. Simulate yourself to work / learn
Game’s Trick

need to convert this trick to real working methodology
Must have good plan and process

- Understanding your business factors, limitations, Objectives etc.
  - This is the key step to implement ERP

- If your business in new entry, Planning for a better process,
  - Simulate yourself as running the business follows your planned process
  - Simulate problems and scenario, and plan to solve them

- If your business is running, Find the process which weak or be your organization problems and solve it
  - Manage people in that process, lets them aware of the problem
  - Lets them be a part of a re-process
  - Solving, Monitoring, Adapting, Realizing and Learning with them
Re-Process when factors has been changed

- based on the game, many factors have involved with;
  - New module was opened, New offering Opportunities
  - Changing of end-user and B2B customers' demand
  - Challenging from your competitors, Timing and yourself concentration
  - Dropping of ability (HR)
  - Problems of workload and overwhelming of information

These are sample of factors is telling you that
No perfectly and permanently process which can be used at all time.
Change the way you work, think, run your business organization
Work as a team

- Collaborative working is always a key success for any organizations
- Based on the game, you had experienced some of collaborative idea and activity like
  - Sharing the same goal
  - Decision making
  - Information sharing
  - How to communicate with the team
  - Developing a better process to runs virtual company

These are basic idea to run your future team or being a good member in team.
Find the root cause and solved it!

- If problem has not start yet, RISK and Key Risk Indicators; KRI must be Investigated and Shared to prevent any problem in future.

- If you are facing any issues,
  - Find out your organization root cause?
  - Lets all parties aware of problem
  - Change Expectation to Inspection
  - Solved it!

- Do Wise (cool) not Do more
What an Entrepreneur think?

Everyone must define and design at your own way

Business Success

Business key factors

- Growth
- Profit & Profitability
- Sustainability
- Social Caring
- Products & Services
- Leader & Teamwork
- Plan, Process & Protocol
- Financial
- Technology & Innovation
- Governance
- Communication
- Information
- Goal / Objective / Passion
- Change management
- RISKs managing
- Marketization
“EXPERIENCE TELLS YOU WHAT TO DO, CONFIDENCE ALLOWS YOU TO DO IT”
- STAN SMITH -
Tell me I forget,
Teach me and I remember,
Involve me and I learn

บอกฉัน ฉันจะลืม
สอนฉัน ฉันจะจำ
แต่ถ้าให้ฉันได้ทำ ฉันจะเรียนรู้
Support Video clip >> http://www.monsoonlink.com/videos/MonsoonSIM_for_general.mp4
Class Material 4.2 >> https://prezi.com/y7gn4e0axh5p/monsoonsim-42-process-description-official/?utm_campaign=share&utm_medium=copy
Official Website >> www.monsoonacademy.com
Official Thai Website >> http://monsoonsimthailand.weebly.com/
Official facebook >> www.facebook.com/MonsoonSimTH
MonsoonSim Description in Thai >> https://www.hightail.com/download/UIRUNnFJNZUWUM1aWNUQw