Conceptual design and simulated operation of economies of scope and scale manufacturing enterprises

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Sub-interaction diagram related to BP4 and BP5

General Blocks
- CIMOSA Domain
- Non-CIMOSA Domain
- Activity
- External Link
- Event

Resources
- Information
- HR
- Physical
- Finance

Flow Control Logic
- Conditional
- OR
- AND
- Sub-Process
- Chained Process
- Delay

Flow Type
- Flow of Resource
- Flow of Process
- Alternative Flow

Operation Type
- Direct Generation
- Direct Supportive
- Indirect Supportive

Modelled by: Tracy Cui
Created: 28/04/2008

Project Title: [Project Title]
Page: 3 OF 9
Version: 1
Revised by: Z.Cui
Updated: 2007-7-17

BP5.2.3 Raise purchase order

Order specification, due date

Raw material parts

Cutting list, material requirement, WIP list, CNC program

production capacity, availability

Raw MDF, Pre-finished material, parts

Feedback, WIP inventory

Flat pack

Finished goods, Flat pack

BP4.1 Obtain Order

Order confirmation

Order specification, due date

Wood Manufacturing (Advance)

BP4.2 Order Processing and Production Planning

Cutting list, due date

Order processing, production planning

Capacity, availability

Cutting list, material requirement, WIP list, CNC program

Feedback, WIP inventory

Flat pack

Finished goods, Flat pack

BP4.3 Machining

BP4.4 Assembly

Pre-finished goods

Wood Manufacturing (Advance)

BP4.5 Warehousing and delivery

Order specification, due date

Order confirmation

Cutting list, material requirement, WIP list, CNC program

Production capacity, availability

Raw MDF, Pre-finished material, parts

Feedback, WIP inventory

Finished goods, Flat pack

BP4.6 Warehousing and delivery
Activity diagram of BP5.1 Obtain order from customers

**General Blocks**
- CIMOSA Domain
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**Flow Control Logic**
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- Direct Generation
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**Activity diagram**
- EA511 Client approach
- EA512 Meeting arrange
- EA513 Give presentation to client
- BP5.1.1 Discuss shop fitting details with clients
- BP5.1.1.1 Discuss shop fitting details with clients
- BP5.1.1.2 Pricing and quoting
- BP5.1.1.3 Send quote to client
- BP5.1.1.4 Accept quote
- BP5.1.1.5 Client place order
- BP5.1.2 Discuss kit details with clients
- BP5.1.2.1 Discuss kit details with clients
- BP5.1.2.2 Pricing and quoting
- BP5.1.2.3 Send quote to client
- BP5.1.2.4 Accept quote
- BP5.1.2.5 Client place order
- BP5.1.3 Public relations visits clients
- BP5.1.3.1 Public relations visits clients
- BP5.1.3.2 Client require details
- BP5.1.3.3 Pricing and quoting
- BP5.1.3.4 Send quote to client
- BP5.1.3.5 Accept quote
- BP5.1.3.6 Client raise order

**Project Title:**
Activity diagram of BP5.1 Obtain order from customers

**Modelled by:**
Tracy Cui

**Created:**
28/04/2008

**Updated:**
2008-4-28
EA521: Receive order →

EA522: Assign Project manager →

EA523: Enter job into system →

EA524: Check feasibility →

BP5.2.1: Negotiate with wood manufacture →

BP5.2.2: Negotiate with metal manufacture →

BP5.2.3: Negotiate with sub-contractors →

BP5.2.4: Raise purchase order for wood →

BP5.2.5: Raise purchase order for metal →

BP5.2.6: Raise purchase order for parts →

EA525: Monitor arrivals →

BP5.2.7: Arrange transports →

Generate deliver note EA 526 →

Receive deliver acknowledgement EA 527 →

Prepare invoice EA 528 →
Activity diagram of BP4.1, BP4.2

BP4.1.1
Enquiry by Woodteam or external customer

EA411
Checking capacity

BP4.1.2
Pricing

BP4.1.3
Confirm order

BP4.2
Order processing and production planning

EA421
Produce cutting list

BP4.2.2
Material purchase

EA422
Update WIP list and select next job

EA423
Prepare CNC program

BP4.3
Machining