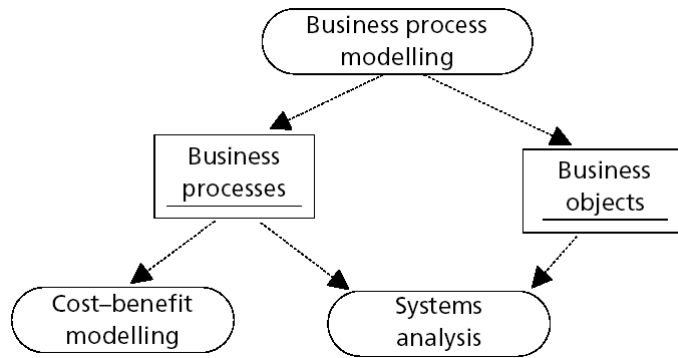
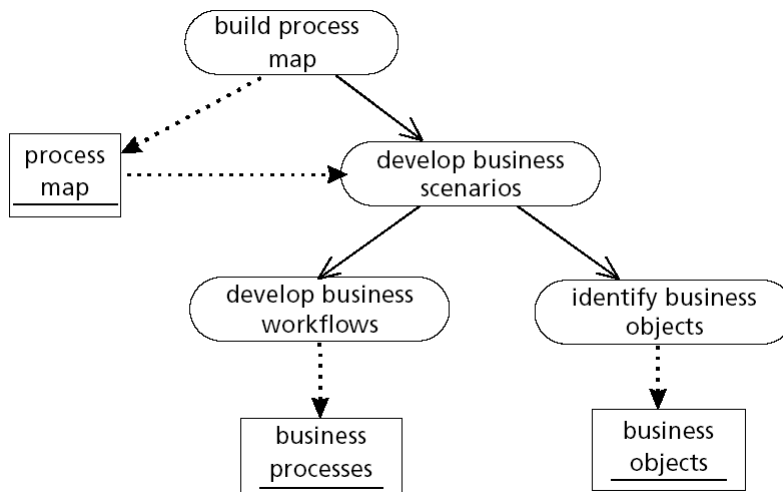


**Figure 8.1** The primary models output by business modelling and their input into other software development processes



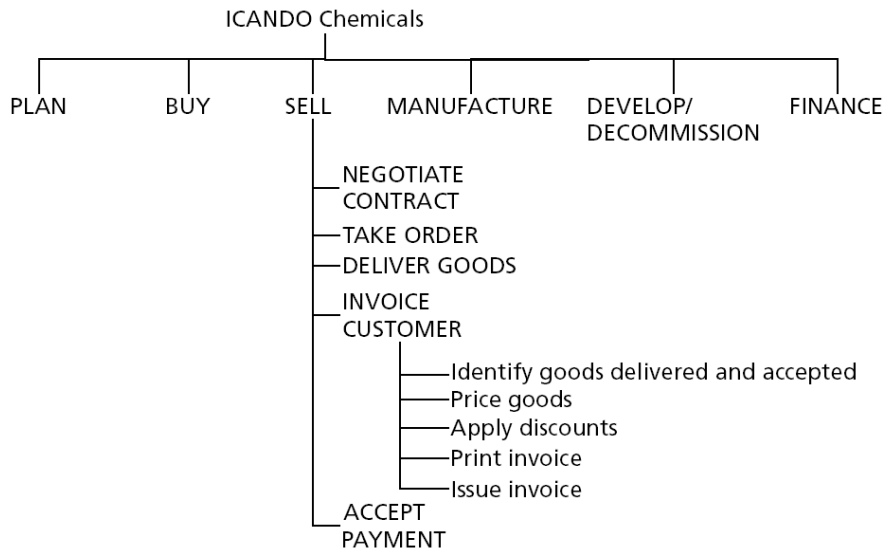
Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.2** The stages of business modelling



Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.3** A process map showing all levels of the processes defined so far



Software Development with UML – Copyright Ken Lunn 2003

Simple Scenario for making a cup of tea

1. Fill kettle
2. Boil kettle
3. Put tea in teapot
4. Pour boiling water
5. Wait for two minutes
6. Pour tea into cup
7. Add milk and sugar

Software Development with UML – Copyright Ken Lunn 2003

Simple scenario for browsing a web shop

1. Go to Web site
2. Browse catalogue
3. Choose product
4. Give delivery and credit card details
5. Submit order

Software Development with UML – Copyright Ken Lunn 2003

The primary path in a bank for someone cashing a cheque would be:

1. Customer presents cheque
2. Clerk checks signature
3. Clerk checks details
4. Clerk checks account balance
5. Clerk counts money
6. Clerk files cheque

Software Development with UML – Copyright Ken Lunn 2003

### Alternative way of making a cup of tea

1. Fill kettle
2. Boil kettle
3. Put tea in teapot
4. Pour boiling water
5. Wait for two minutes
6. Pour tea into cup
7. Add milk and sugar

Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.4** A process analysis using primary and alternative paths

#### Primary path

1. Go to Web site
2. Browse catalogue
3. Choose product
4. Give delivery and credit card details
5. Submit order

#### Alternative paths

- 2.1 Catalogue database not available
  - Put up error screen, apologizing to customer and asking them to check later.
- 4.1 Credit card details invalid so:
  - Put up error screen explaining problem
  - Ask customer to re-enter details
  - Re-check details, and if OK, continue to Step 5
- 4.2 Credit card details invalid after second attempt
  - Abandon transaction
- 4.3 Postcode does not match address line
  - Put up error screen explaining problem
  - Ask customer to re-enter details
  - Re-check details, and if OK, continue to Step 5

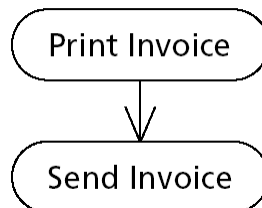
Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.5** The UML notation for an activity to print an invoice



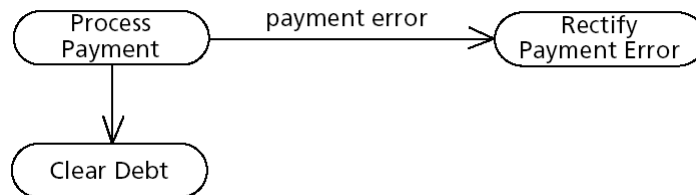
Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.6** A simple transition from one activity to another



Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.7** A transition triggered by an event interrupting an activity



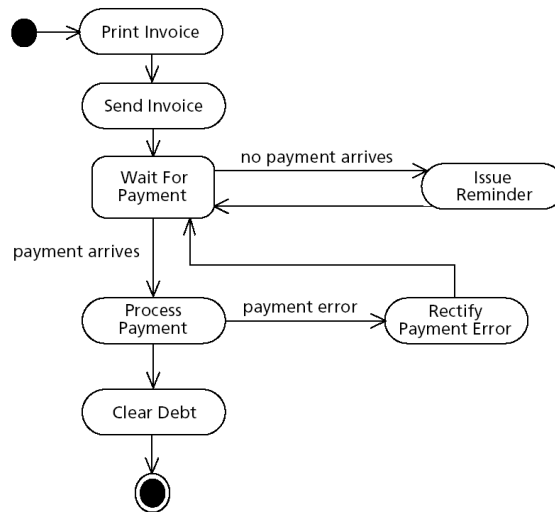
Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.8** A state in an activity diagram



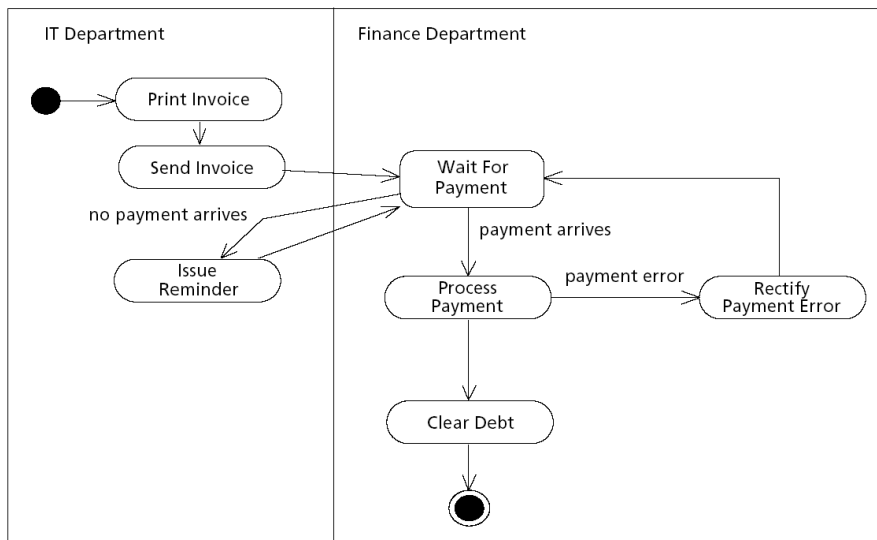
Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.9** A simple activity diagram showing the process of obtaining payment

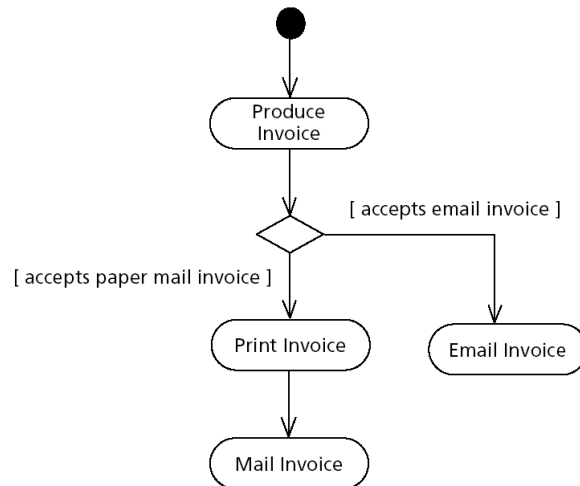


Software Development with UML – Copyright Ken Lunn 2003

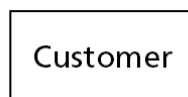
**Figure 8.10** An activity diagram with swimlanes indicating which business areas carryout the activities.



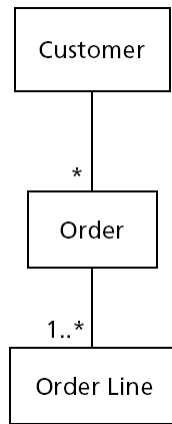
Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.11** A simple example of a decision

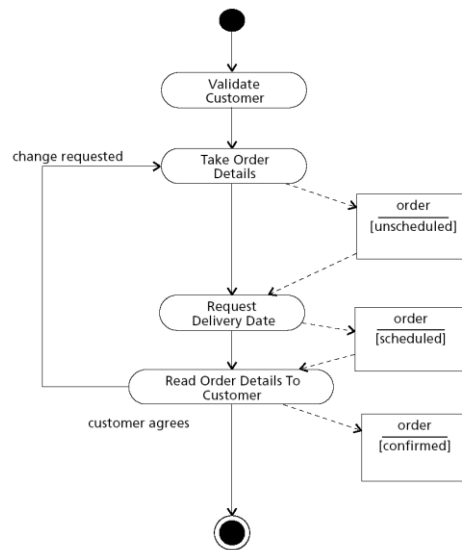
Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.12** The UML notation for an object or class

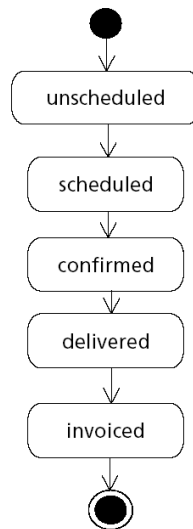
Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.13** Showing relationships between objects in UML

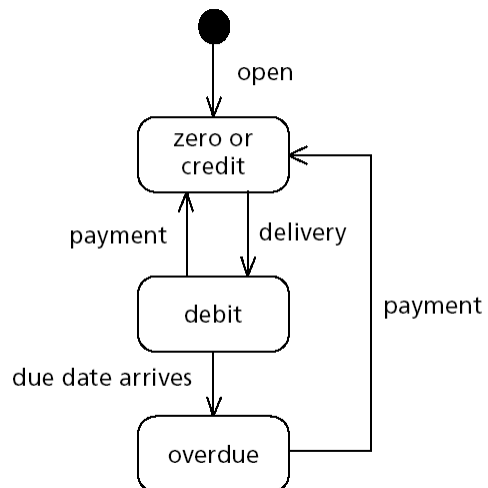
Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.14** Objects on activity diagrams

Software Development with UML – Copyright Ken Lunn 2003

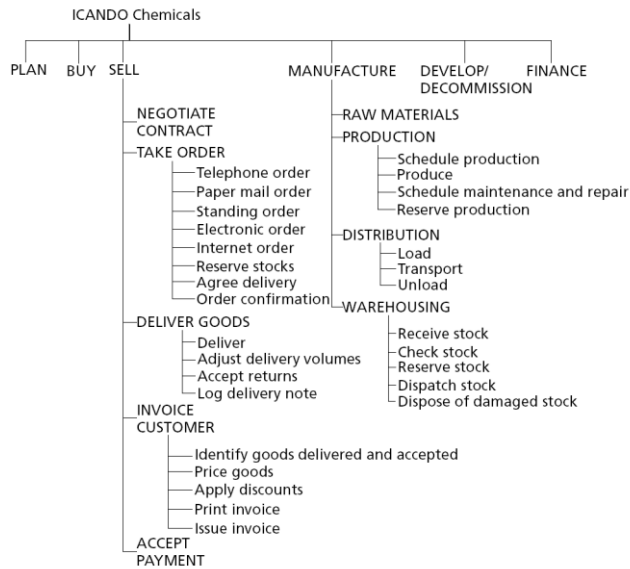
**Figure 8.15** A simple statechart model for an order

Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.16** A statechart model for an account

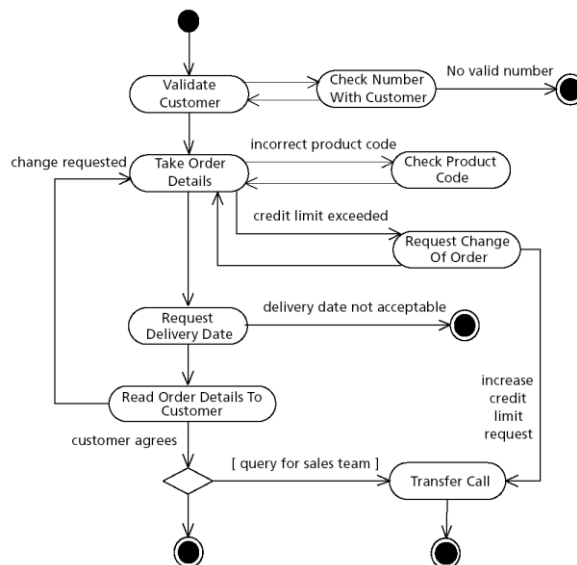
Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.17** The business process map for ICANDO chemicals, focusing on the aspects relevant to the new sales order processing system

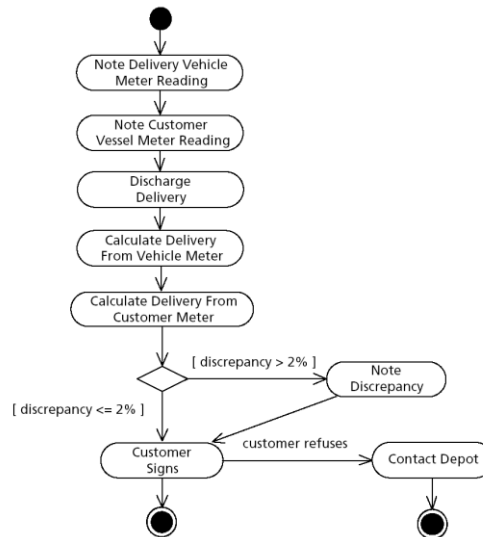


Software Development with UML – Copyright Ken Lunn 2003

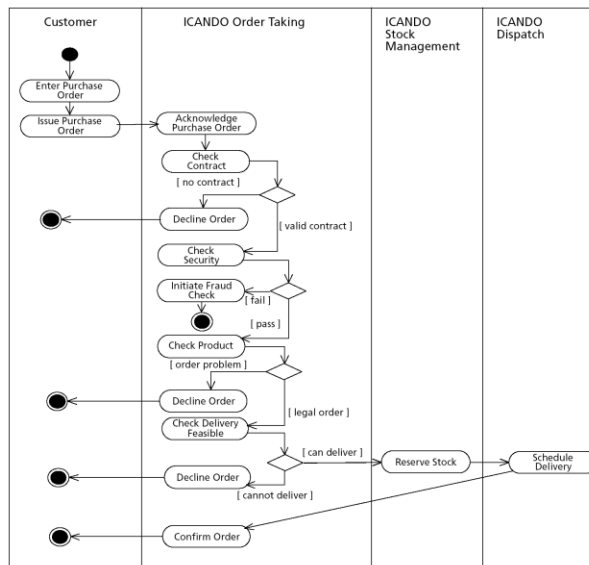
**Figure 8.18** Workflow for the telephone order process



Software Development with UML – Copyright Ken Lunn 2003

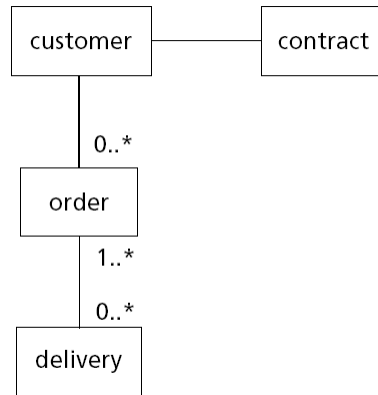
**Figure 8.19** Workflow for adjusting delivery volumes

Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.20** Workflow for electronic ordering

Software Development with UML – Copyright Ken Lunn 2003

**Figure 8.21** Business object model for ICANDO Chemical ordering



Software Development with UML – Copyright Ken Lunn 2003