

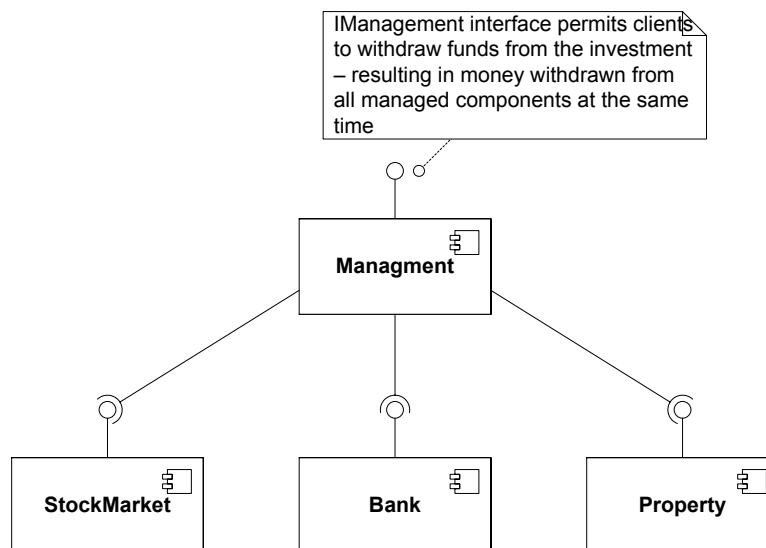
Tutorial 5 – Enterprise Architecture (.NET)

Introduction

Consider the following parts of abstract UML2 architectures. Redraw them using our .NET / COM+ specialization of UML2, using COM+ services where appropriate.

Exercise 1 – Investment Management

A managed investment consists of a range of investments maintained by various groups – a bank (compound interest term deposit), the stock market (stocks) and a property group (shares in various properties). A software system is to be built to allow customers to manage their participation in such managed investments. In particular, the system should permit a customer to *withdraw* their investment from the fund; this will result in withdrawal from all three forms of investment at the same time, subject to potential penalties. The system consists of four components. Three components handle interaction with the three investment groups: a *StockMarket* component, a *Property* group component and a *Bank* component. A fourth component manages investments through the other three components.



Exercise 2 – Email System

An architecture consisting of a visual email client *Client*, an intermediate session management component that manages a socket connection to an SMTP email server *EmailSessionManagement* and an SMTP email server *SMTPServer*. The socket connection is expensive to maintain over a long period of time, but creation of the socket itself is not expensive.



Exercise 3 – Bank Logging System

The architecture of the logging system of a single branch of a bank. All transactions made by tellers are to be logged, using a special logging component that maintains a connection to a database. Because the database is legacy, the logging component takes a lot of time to initialize. It is in constant use—every 2 minutes or so transactions relating to one of the tellers needs to be logged.

